The Bradshaw Lecture

ON

PERSONAL EXPERIENCES IN THE SURGICAL TREATMENT OF CERTAIN DISEASES.

Delivered at the Royal College of Surgeons of England on Dec. 11th, 1901,

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MR. PRESIDENT AND GENTLEMEN,—Permit me, before commencing my address, to express to you, however inadequately, my deep sense, shared, I am sure, by everyone here present, of the enormous loss our profession and the entire community have sustained in the death of our late President, Sir William MacCormac. The whole world knows how, at the call of the Government, he faced the dangers of the South African battlefields in order to place his unrivalled experience at his country's service, at a time, too, when he might well have claimed his right to rest. Who can estimate the sum of consolation carried by this act of patriotism into the innumerable anxious homes throughout the length and breadth of the land? We alone who have been brought into close contact with him within these walls can appraise the value of his work on behalf of this College. No man has had its interests more at heart, none been more ready to place time and labour at its disposal. To us it is a consolation to know that he has died honoured alike by his Sovereign, his professional brethren, and the people.

The generous Founder of the Bradshaw Lecture exercised, I think, a wise discretion in permitting each individual lecturer to select his own subject, placing no further restriction upon him than that he shall not range beyond the realm of surgery. Such liberty of choice would seem admirably calculated to afford opportunities for the appointed lecturers to place before their colleagues matured opinions upon subjects in which they may have been specially interested or may perchance have obtained wide, if not exceptional, experience. Our late distinguished President, when asking me to undertake the task for this year, must chiefly, I feel sure, have intended to do honour to the large and well-reputed hospital with which I have for many years been connected, and yet, whilst fully recognising this, I desire to place on record my high appreciation of the compliment paid to myself. A hospital surgeon, engaged as I have been in active surgical work for a period of more than 30 years, cannot fail to have observed facts, to have made deductions, and to have formed opinions from which perchance some advantage may accrue to those who follow after. It is in the hope that my own experiences may prove helpful to others in however small a degree that I have determined to speak to you to-day upon some lessons which I have learned in the surgical treatment of certain organs. Within the limits of a single lecture it would of course be impossible adequately to deal with the surgical affections of even a single organ or region, and it is not my intention to make so vain an attempt. My desire is rather to illustrate from the records of my own practice some well-known surgical diseases and to indicate the methods of dealing with them which have commended themselves to my judgment.

I have hesitated somewhat in my desire to say something concerning the surgery of the kidney, our colleague, Mr. Morris, having recently published so complete and masterly a work on this subject as to leave little unsaid. On most questions, however, and especially on those of recent origin and development, there is room for personal experience, even if the outcome be no more than to confirm what has been observed by others; nay, more, it is only by the accumulated experience of many that such works as Morris's are rendered possible, and so it becomes a duty for each of us to make what addition we can to the common stock. I will not therefore apologise for offering my small contribution to so large a subject, but will claim that in so doing "I've done my duty and I've done no more."

My first essay in renal surgery dates back to the winter of 1869–70, and as it exhibits a combination of boldness with timidity which not inaptly exemplifies the surgery of that date I will not hesitate to make confession of it. It was about this time that M. Dieulafoy had introduced to the profession his well-known "pneumatic aspirator," an instrument which early came into very general use, and by means of which surgeons were emboldened to evacuate and to examine the contents of cavities and swellings hitherto most frequently reserved for post-mortem examination alone. Few diagnoses, indeed, were considered complete which did not include the information to be obtained by means of this instrument. A dispensary patient, pale and emaciated from a long-standing pyuria, was brought under my notice in whose right loin could be plainly felt a large swelling, firm, fixed, and elastic. A diagnosis of abscess in the kidney was confirmed by an obvious diminution in the urinary sediment after several ounces of pus had been evacuated through the loin by means of the aspirator needle. The suppuration along the needle track which ensued led me to incise freely the loin and the subjacent kidney, the dilated calices of which were readily felt by the finger introduced through the incision. No foreign substance was felt nor was any diligent search made. The after-treatment consisted of the inevitable linseed poultice, and the results, I need hardly say, were pyæmia and death. In addition to the pyæmic foci of recent origin the necropsy revealed nothing more than a kidney converted into a thick-walled sacculated bag of pus in which was embedded a phosphatic coated uric acid calculus of considerable size. Of the early history of this patient I have neither note nor recollection. Probably it was less eventful than the extent of mischief would seem to imply. The result warned me off the kidney and increased the superstitious dread which I shared with the profession at large of meddling with so vital an organ. These, too, were the pre-antiseptic days, for although Lister had been labouring hard for some years to secure the acceptance of his doctrines respecting the origin, causation, and prevention of surgical inflammation, it was not until about the year 1870 that he obtained anything like a general adhesion to his teaching; and it is not too much to say that had it not been for Lister's discoveries there would in all probability have been even now but little advance in renal surgery upon the sample I have just related. It was not, indeed, until late in the "seventies" that surgeons made any serious attempt to bring the kidney within the range of their treatment. Mr. Morris tells us that he was the first to undertake a nephro-lithotomy and his operation took place in February, 1880. Simon of Heidelberg is credited with having been the first intentionally to perform a planned nephrectomy in 1869; and in these early days Dr. Meadows and Mr. Durham in this country and others abroad have reported cases in which the operation was either completely or incompletely performed, albeit on a mistaken diagnosis.

In June, 1877, I undertook my first nephrectomy upon a child, aged two years and three months, who for several months had been passing bloody urine and whose condition was one of pallor with some wasting. In the left loin an increasing mass of considerable size, easily defined and possessing some slight degree of mobility, had been under observation during several weeks. The operation consisted of an incision in the loin commencing a finger's breadth from the vertebral spine and carried midway between the costal margin and the iliac crest to an extent sufficient to allow of the insertion of the fingers and thumb. On careful division of the muscles the capsulated tumour was exposed and its separation from surrounding tissues, together with that of the kidney from which it sprang, was easily effected. The whole of the pedicle, containing ureter and blood-vessels, was secured in a double ligature of hemp and the mass, severed from its pedicle by scissors, was removed. The growth, which involved a considerable portion of the renal structure, is described in the notes as "encephaloid." The immediate recovery of the child was complete and satisfactory, but the respite was not of long duration, inasmuch as during the ensuing autumn the child died with unequivocal signs of a return of the disease beneath the site of the operation. Owing to my absence from home the body was not examined. These details may be of some interest from the fact that this was, so far as I am aware, the first nephrectomy undertaken of set purpose in this country, and for the additional reason that the general outlines of the case as here given do not differ materially from those found in a large majority of the cases of sarcoma of the kidney in young children, of which this was probably an example. Eight similar cases have

come under my own observation in which, with variations only in age—the youngest being 13 months and the eldest five and a half years—in the size and the duration of the tumour and in the general condition of the patient the description I have given would apply equally. Nor have I in the later cases materially altered the mode of operation. The incision has been made somewhat nearer the last rib and has been lengthened when necessitated by the size of the tumour; silk ligatures have been substituted for the hemp, and greater care has been exercised in establishing and maintaining complete asepticity of the wound. One little patient died under operation from loss of blood and shock; the rest recovered from the effects of the operation.

Walsham in Morris's treatise on Anatomy points out the danger when performing nephrectomy on the right side of including within the ligature a portion of the vena cava. Once this actually occurred in my hands and on another occasion my previous experience alone enabled me to avoid a like catastrophe. The first of the two cases was that of a female, aged two years and 10 months, sent to me in June, 1883, in whose abdomen her father accidentally discovered a swelling at a time when the child was believed to be quite well. No deviation from health and not a symptom of any kind had been observed. Once attention had been drawn to the swelling it was closely watched and it soon became evident that a rapid increase was taking place. When brought under my notice the right half of the abdomen was occupied by a smooth, firm mass, equal in size to a fœtal head at birth, which moved visibly during respiration and admitted of a considerable amount of lateral displacement (and I may remark parenthetically here that unusual mobility due to, or at least attended with, an elongated pedicle was a marked feature in both cases). In accordance with my practice at that time—a practice which I have long since abandoned as an aid to the diagnosis of any abdominal tumour—an aspirator needle was introduced with the result that the withdrawal of a minute quantity of blood only determined the solid character of the growth. It was then decided to remove it and the operation was performed at the patient's home. Owing to the entire absence of symptoms, the extreme mobility of the mass, and our inability to attach it to any organ no diagnosis was arrived at. An incision was made through the linea alba in mid-abdomen and the tumour with cæcum and ascending colon pushed across to the left of the vertebral column exposed. On inspection it was seen to consist of a growth springing from the kidney and tethered by a broad pedicle, containing the renal vessels and the ureter, to the loin so loosely as to allow a free range of movement. Through an incision made in the external layer of the meso-colon the peritoneum was stripped and the mass was delivered with more readiness than was expected owing to the length of the pedicle. This was transfixed and tied with a double silk ligature. The kidney and tumour, weighing together three pounds and two ounces, were detached by means of scissors. The peritoneal incision was sutured and the cavity drained by a rubber tube passed through the loin. The operation lasted one and a quarter hours. Five hours after its completion the temperature was found to be 101° F. and the pulse was of good volume. The child was cheerful and chatted freely with her nurses. Two hours later—viz., seven hours after the operation—the patient died with absolute suddenness. A subsequent examination of the growth—there was no post-mortem examination—threw some light on the cause of death, seeing that in the portion of the pedicle removed it was found that the enlarged renal vein abruptly widened out so enormously where ligatured as to suggest that the vena cava had been dragged by the weight of the mass of disease so as to project well within the root of the kidney. (Fig. 1.)

In removing the kidney for malignant disease the surgeon, naturally anxious to avoid leaving a portion of the disease behind, secures the vessels at as great a distance as possible from the kidney. In avoiding this danger it is well to bear in mind another, that, viz., of including within the grip of the ligature a portion of the wall of the vena cava, and so incurring the risk of the formation of a thrombus, which at any moment may be washed into the right heart and give rise to sudden death.

The second case was that of a child, two years old, admitted into the Leeds Infirmary in October, 1888, in whom the right kidney was the seat of a cystic sarcoma forming a large tumour which filled the right half of the abdomen and extended beyond the mid-line. This, like the former, admitted of a considerable range of lateral movement, but, unlike it, was not visibly affected by respiration. It was removed by the abdominal route, the incision being made to follow the course of the outer right linea semilunaris. After incising the peritoneal covering and stripping the mass from its surroundings it was found, as in the former case, that owing to the length of its pedicle it could readily be withdrawn from the abdominal cavity; and on closely examining the pedicle there was no difficulty in demonstrating the vena cava as one of its constituents; it occupied, indeed, so much of the meso-nephron as to necessitate special care in the selection of the spot at which to place the ligature. The

FIG. 1.

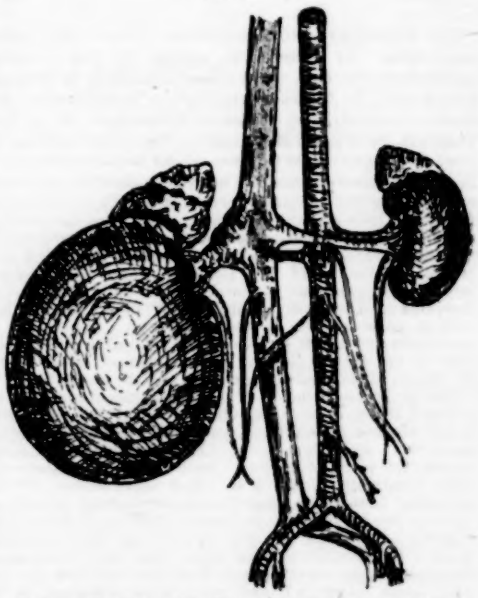

Diagram illustrating the effects of a large tumour of the right kidney producing great dilatation of the renal vein and lateral displacement of the vena cava.

visceral peritoneum was closed by a continuous suture except at its lower end, where it was attached to the inferior extremity of the abdominal wound for drainage purposes. The patient recovered and was sent home in December; but in the February following the medical attendant wrote to say that the child died on the 7th of that month.

It will thus be seen that of the 11 cases of nephrectomy for tumour in young children nine were operated on by the lumbar method and two only by the abdominal. In deciding which of the two methods to adopt I have been guided chiefly by the size of the tumour and in some measure by its mobility. Hitherto there has been, rightly or wrongly, a general consensus of opinion in favour of the lumbar route whenever applicable, and it is applicable in all or nearly all in which the tumour can be brought whole through the lumbar incision. In the two removed by the transperitoneal operation the mass was of relatively enormous size, and in both there was a degree of mobility sufficient to suggest an elongated and narrow pedicle. Of the 11, one, a pallid and wasted child, 13 months old, died before the completion of the operation, and another lived only seven hours, death being sudden and probably due to cardiac thrombus arising from an injury to the vena cava. Nine recovered from the operation, but the longest survivor lived only two years and five months, whilst one was reported to have died at the end of nine weeks. In how many death resulted from recurrence of the disease I have no means of knowing. Three times only had I the opportunity of seeing the child when nearing the end, and in each of these were undoubted evidences of recurrence. In two others the medical men in charge reported the presence of abdominal tumour.

My results are neither better nor worse than those reported

by other surgeons. It is several years since I last undertook a nephrectomy in a young child, and unless future experience gives better ultimate results than I have hitherto met with the want of confidence I already feel in recommending the operation in children suffering from malignant growths cannot but be emphasised.

In dealing with a mortal disease an immediate mortality of a little over 18 per cent. seems encouraging enough, but when it is borne in mind that the longest survivor of 11 died within two and a half years the question forces itself upon our consideration whether it is worth while to incur the undoubted immediate risk of the operation and the anxiety to parents and friends for the possibility of so small a gain. Bear in mind it is of young children I am speaking, in whom an addition of a few months or of even a year or two of life is not comparable with a similar addition to the lives of adults. It is even doubtful if in these 11 children there was any actual increase in the aggregate length of life obtained. This raises a grave question, one which cannot, of course, be determined upon the experiences of a few. It is, indeed, too early yet to express an authoritative opinion upon the point seeing that it is only within very recent years that nephrectomy has been undertaken by the general surgeon, and the collected data, although considerable, are insufficient for the purpose. In not one of my cases was an early diagnosis arrived at and in all the disease had consequently made considerable advance before the operations were undertaken. The absence of prominent symptoms has doubtless militated against early removal in some, whilst in none probably has the surgeon deemed it right to open loin or abdomen until such time as he has been satisfied of the presence of a substantial growth. Considering with what little risk an intra-peritoneal inspection of the kidneys may be undertaken if on the earliest suspicion of a growth an examination by inspection and palpation of the organs be made it may be possible to detect the presence of sarcoma or other growth at a much earlier date than has hitherto been accomplished and so, it may be assumed, to lessen the probabilities of return. Bearing in mind, however, that the only prominent signs of the disease in young children are the presence of a tumour in one or other loin and the occurrence of hæmaturia, that whilst the latter is by no means constant the former, even though it be of fœtal origin, has usually attained a considerable degree of development before its existence is suspected, the probability of very early diagnosis seems somewhat remote; and yet by early detection and prompt removal alone can we hope to improve upon our hitherto unsatisfactory results. In estimating the value of this operation it is not sufficient for the statistician to tabulate his cases under the two heads "cured" and "died"; we must be informed as to the duration of life in those reported "cured," or indeed statistics will only mislead.

Much more encouraging are the results obtained after nephrectomy in adults, partly because in the majority of cases the operation is performed for conditions other than those of malignancy, and in part it may be because of the lesser degree of malignancy usually met with in the renal tumours of the adult and of their consequent diminished liability to diffusion and speedy return. I have operated on 16 adults, of whom six had tumour, three calculous pyelitis, four tuberculous or other form of non-calculous pyelitis, two fistula following nephro-lithotomy, and one uncontrollable hæmorrhage after nephro-lithotomy. Of the six cases of tumour two recovered, two died within a few hours from shock, one died on the third day after operation with symptoms of intestinal obstruction which were not relieved by enterostomy, and one lingered nine days, gradually sinking from exhaustion. The first of the two patients who recovered after nephrectomy for tumour was a man, aged 56 years, whose chief symptoms were frequent hæmaturia, a dull aching in the left loin which was completely filled by a large growth, and increasing pallor with loss of strength. The substance was removed by the lumbar operation and it was found to consist of an upper third of normal renal tissue and a lower two-thirds of new growth which was reported to be malignant adenoma. The second case was that of a woman, aged 36 years, in whom a diagnosis was arrived at only during the progress of the operation. She was very stout and her abdomen especially was fat and large. After her third confinement nine months before she came under observation she discovered a globular substance in her left abdomen, which, however, gave rise to no inconvenience. It increased in size and in June, 1900, it was described as being round and of the size of an average cocoa-nut. It lay in the left iliac fossa, was firm, and it had a free range of movement. It could be made to lie on the lumbar vertebræ, could be pushed upwards into the loin, leaving the iliac fossa empty, and it could be brought downwards just within touch of the fingers in the vagina at the brim of the pelvis. No attachment to the uterus could be made out. The functions were in no way interfered with and the patient's general health was good. On opening the abdomen in the middle line and exposing the tumour it was seen to spring from the left kidney. Pushing the intestine to the right it occupied the whole of the space between the twelfth rib and the iliac fossa, and was composed of the upper half of the normal kidney resting upon a capsulated growth which included the pelvis and the rest of the kidney. The upper portion of the kidney not directly involved in the growth had a remarkably elongated appearance, as if it had been stretched by the weight of the tumour, and by its means the range of movement was greatly increased. Its peritoneal covering having been incised and stripped off the pedicle was secured and the whole removed. Drainage was effected through the loin and the peritoneal wound was closed by suture. The tumour was composed of a mass of cysts inclosed in a thick capsule and contained no malignant element.

The four patients who died presented large tumours and in all the transperitoneal method was the operation selected. Two males, aged respectively 53 and 61 years, and one female, aged 34 years, were the subjects of disease in the left kidney pronounced to be sarcoma. The fourth was a male, aged 56 years, with carcinoma of the right kidney and adrenal extensively adherent to the under surface of the liver. Of the 10 adults in whom nephrectomy was performed for conditions other than that of tumour two died and eight recovered. One of the fatal cases was that of a young man from the substance of whose kidney I had removed a calculus by an incision made directly over the stone through the substance of the kidney tissues. Very free bleeding at the time of operation was temporarily arrested by pressure and it was not until after several recurrences of the hæmorrhage during the next three days that it was decided to remove the kidney. At the operation the wound was believed to be in a septic condition, infected probably by the suppurating pelvis of the kidney. In spite of much care and pains taken to cleanse the wound the patient died from septic peritonitis. The other fatal case was that of a delicate woman, aged 30 years, from whom I had a few months before removed four small calculi found loose in the pelvis of the kidney, which was also largely distended with pus. It had become evident that the patient must sink. The lumbar nephrotomy wound continued to discharge pus mixed with some urine in large and undiminishing quantity, the condition of the patient was deteriorating, and the temperature pointed to a general septicæmia. In the hope of being able to arrest this downgrade the kidney was removed through the loin. The patient only survived the operation 58 hours, and during that time no more than eight ounces of urine were secreted. Of the eight who recovered three were the subjects of calculous pyelitis and had previously undergone the operation of nephro-lithotomy; four were for tuberculous or other form of non-calculous pyelitis, and, like the former, had previously undergone nephrotomy; and one was for urinary fistula following nephro-lithotomy. In each the lumbar operation was selected.

It will thus be seen that of the five transperitoneal operations four died, whilst of the 11 lumbar nephrectomies two died, showing a difference as between 80 and 18 per cent.; whilst if the whole 16 be classed together, with six deaths, the mortality is 37½ per cent. This places the transperitoneal operation in a very unfavourable light. But in estimating the relative dangers of the two operations the nature and extent of the disease, as well as the character of the operation itself, must be taken into account. The lumbar route being inapplicable to the largest tumours—and the larger the tumour, other things being equal, the more dangerous its removal—it follows that some of the least promising are transferred to, and made to swell the mortality of the abdominal operation. So, again, the age of the patient must influence the death-rate. Of the four who died one was over 60 and two between 50 and 60 years of age. A mortality of 37½ per cent. cannot be accepted as at all satisfactory, and increased experience leading, as doubtless it will, to improvements in the technique of the operation and the avoidance of many pitfalls may be

confidently reckoned upon for the securing of better results. How far, for instance, with improved methods of combating or averting shock we may be able to lessen the mortality the future will decide. At the time when the four transperitoneal operations for tumour were undertaken we were not in the habit of injecting strychnine hypodermically or of introducing saline solutions within the veins, two powerful agents without which no surgeon would at the present day consider himself sufficiently armed when undertaking operations of such magnitude or involving such prolonged anæsthesia. The two patients at least who died within a few hours of the operation I cannot but think would have had a better chance of recovery had we been able to make use of the means for averting shock with which we are now familiar.

In weighing the advantages and disadvantages of the two operations with a view to selection in a given case it must be noted that in the anterior method the peritoneum is twice incised, whilst in the posterior that membrane is not necessarily wounded at all. This is a matter of very considerable importance, more especially if the organ to be removed is in a septic condition, as is the case in all suppurative diseases. Speaking generally, the lumbar route is to be selected in preference to the anterior whenever the kidney is known to be undergoing septic inflammation, as also in those cases of neoplasm which present no such difficulties as are due to mobility or to extreme size; for whilst the danger of soiling the peritoneum during the extraction of a septic organ through an anterior opening is a very real one, and would lead to a preference for the posterior route, the difficulty of removing a very large growth through the limited space between the costal margin and the iliac crest or of enucleating a kidney having a free range of movement within the abdomen would suggest the desirability of attacking it from the front. The transperitoneal method possesses further advantages, such as enabling the operator to examine the opposite kidney as well as the other abdominal organs, in any of which might be found secondary growths or other conditions sufficient to negative the completion of the operation; and again the readiness with which the renal vessels may be secured in such manner as to render the operation a comparatively bloodless one.

On reviewing my own work apart altogether from results, for indeed the number of cases is not sufficiently large for statistical purposes, I incline to the opinion that the lumbar operation will continue to be preferred for those cases in which sepsis is known or is assumed to exist and for those neoplasms in which the growth is of recent origin and of small or moderate size; whilst the larger renal tumours will be attacked from the front with more prospect of success in proportion to our increased knowledge of, and attention to, details in the operation itself and to our ability to avert death from shock. I have said that nephrectomy in the adult gives more encouraging results than is obtained in children. This declaration must be qualified in that it applies not to the immediate but only to the ultimate result. It will have been seen that of the 11 children nine recovered from the immediate effects of the operation, showing a mortality of 18 per cent., whilst of the 16 adults six died whilst under treatment, giving a mortality of 37½ per cent.; but on inquiring into the future history of these 10 adults whose operations were successfully accomplished we find a much more favourable record than in the cases of the children, the longest survivor of whom you will remember died within two and a half years. Of the 10 adults who recovered one, aged 56 years, the subject of "malignant adenoma," attended with persistent and profuse hæmorrhage, whose kidney was removed by the lumbar method in 1888, survived nine years without any sign of return of the disease, the cause of death being certified "cardiac dropsy." This man during several years after the operation continued to work as a compositor in a newspaper office, and on several occasions he assured me that his health was in no way impaired. Another of the successful series was that of the woman, aged 36 years, whose left kidney with tumour attached was removed by the anterior operation in June, 1900. The growth in her case was reported on as one of cystic degeneration devoid of malignant elements, and she is now in good health. Of the remaining eight successful nephrectomies—all of which, undertaken for conditions other than that of neoplasm, were performed by the lumbar method—three are known to be still alive and well, and their respective operations bear the dates 1883, 1890, and 1891. One was reported to be in good health 15 months after the operation, one migrated to Australia "about three years after his kidney was removed," and of three I have failed to find any trace. Such results as these, if we take into consideration the hopeless condition in which most of the patients were placed at the time their operations were undertaken, imperfect though they are, cannot fail to encourage us in persevering with a radical treatment which, if essentially fraught with risk, may yet admit of such improvements as will lead to greater and more certain success in the future.

In furtherance of my intention to place before you some examples taken from my own personal experience in renal surgery, and altogether repudiating any pretensions to originality or claim to address you *ex cathedrâ*, I will now pass on to a brief consideration of nephro-lithotomy—an operation which I confess not to have held in the highest estimation until within the last five or six years, owing, as I now realise, to the non-recognition of essential anatomical considerations. In October, 1882, I attempted to sound a kidney for stone by means of a long fine needle passed through the loin, and whilst the instrument was being manipulated it snapped, leaving five inches buried in the tissues. This *contretemps* compelled me to incise the loin, and owing to the difficulty I experienced in finding the needle, which, however, was eventually recovered, the kidney was exposed and I was thus enabled to make a more thorough exploration by means of the needle passed in many directions and to varying depths. The result was negative as regards the discovery of a calculus, but from that time the renal pain disappeared, and thus a cure, which at that date and for many years after seemed inexplicable, was accidentally brought about. Not until 1886 did I succeed in locating and removing a calculus, although I had in the meantime made unsuccessful attempts on four patients to discover a suspected calculus by means of manipulation and needle puncture of the kidney exposed at the bottom of a lumbar incision. Fortunately, no harm was done to any of the four. The patient from the pelvis of whose kidney I succeeded for the first time in removing a calculus had a narrow escape from death by hæmorrhage, owing, doubtless, to the position and direction of the incision which was made on the anterior aspect of the kidney immediately beyond the pelvis parallel with the long axis. The stone was branched, it weighed a little over two drachms, and was so embedded in the kidney structure as to cause some amount of tearing in its extraction. Hæmorrhage, very free at the time from the wound, was eventually arrested by sponge pressure, and as on removal of the sponge a few hours later the hæmorrhage had apparently ceased, whilst there was no indication of an escape of urine, the external wound was closed. Next day, as he had not voided urine and the bladder was found to be moderately distended, a catheter was passed and some deeply-stained urine drawn off without materially lessening the distension. Upon this a suction syringe was improvised, and by its means a large amount of coagulated blood was extracted. As upon examination the lumbar wound was found to be in a wholly satisfactory state further interference seemed uncalled for. During several days the pumping operation had to be repeated, but eventually the bleeding ceased and his recovery progressed slowly to its completion. In 1888 there occurred the unfortunate case I have previously mentioned, in which, after an incision similar to the one just described, repeated external hæmorrhage extending over several days decided me to remove the kidney with the result that the patient died from septic infection. It thus became manifest that hæmorrhage constituted a formidable danger in the removal of calculi impacted in the kidney substance.

Amongst my early cases, again, were two in which stones were readily discovered by palpating the pelvis, and were almost as readily removed through direct incisions in the pelvic wall without implicating the kidney tissue proper. In one of the two I made an attempt to suture the wound, but in both the whole of the urine continued to flow through the drainage-tube and permanent fistulæ became established. Relief from the intolerable nuisance produced by the leakage was at length obtained by removal of the organ. For a time my hope for the future of nephro-lithotomy fell to a low ebb, and I almost despaired of seeing it established as a useful operation. Interest, however, was revived in May, 1888, by a successful issue in the following case. A farmer, aged 52 years, came under my care in the infirmary complaining of loss of strength and of his urine being "milky." He was

stout and sallow-faced, of aged appearance, and flabby-limbed. His complaints were exceeding few. His urine contained one-fourth pus, and the left half of his abdomen was occupied by a smooth definitely outlined elastic tumour. He had never known pain, had worked up to the time of his admission, and had only noticed the change in his urine for a few weeks. He was not an observant man, and his previous history was almost a complete blank. On a diagnosis of pyonephrosis I cut down upon the left kidney, and on incising it 26 ounces of pus were collected. A digital exploration of the thin-walled sac into which the kidney had been converted revealed the presence of an unusually large stone, which after extraction by means of large lithotomy forceps was found to weigh 11 ounces 160 grains (Fig. 2). It was firmly adherent and had to be peeled off, so

FIG. 2.

Renal calculus (rather more than half-size) weighing 11 ounces 160 grains.

intimate was its connexion with the pelvic wall. The kidney was a mere shell and had ceased to perform its function, for at no time was there any discharge of urine from the drained wound. During the first few weeks pus flowed freely though in diminishing quantity, and in little more than four months the wound was closed. About five years after the operation, having meanwhile enjoyed good health, he died with symptoms, so I was informed, of intestinal obstruction. In view of the enormous size of the stone and of the very extensive character of the disease in this case the entire absence of pain from commencement to end forms a very remarkable feature which serves, however, to emphasise the fact, verified again and again in my own practice, that the amount of suffering in nephro-lithiasis bears for the most part an inverse relation to the size of the stone. A small mobile calculus lying loose in the pelvis, partially blocking now and again the orifice of the ureter, gives rise to greater and more frequent pain than does a larger one fixed in a calyx or imbedded in the kidney substance. This, by far the largest specimen I have myself removed, was unattended with pain at any period of its formation or growth, whereas the patient who within my recollection suffered most, and most frequently, requiring daily administration of morphia for a period of from three to four months, eventually passed a small lithic acid calculus per urethram to her complete and permanent relief. It is worth mentioning in this connexion that the stone was passed during the night following my first examination of the patient, which included a free manipulation of the loin, and resulted in arrangements being made for a nephrc-lithotomy on the following morning—arrangements which were, of course, indefinitely postponed. How far it may be claimed that the stone received a determining impulse on its outward passage from the hands of the manipulator I am unable to assert, but that such an explanation is not wholly chimerical receives some support from the following two cases.

I was asked by the directors of a railway company to examine on their behalf a man who was seeking compensation for damages received in a collision. The injuries were severe and indicated considerable violence. Amongst the details of the accident it was stated that he was thrown upon the floor of the compartment where he received several blows upon his back from other passengers falling in a confused heap upon him. After having been conveyed home his sufferings were so severe that, pending the arrival of a medical man, his wife had him placed in a hot bath. Whilst lying there micturition became imperative and frequent, the urine being decidedly blood-stained, and at length he emitted a lithic calculus of the size and shape of a barleycorn. The other case was that of a young man suffering from well-marked renal colic, in whose kidney I failed to detect a stone by careful manipulation and needle puncture. The search was abandoned and the wound was closed. Early next day he was found to be suffering from retention of urine, due to the impaction of a calculus in the membranous urethra, plainly felt in the perineum. It was removed through a median incision and the retention was speedily relieved. In the one case the escape of the calculus so shortly after the patient had been violently shaken and severely pounded amply suggests cause and effect, whilst in the other case there is little room for doubt that the search by palpation of the kidney and its pelvis directly resulted in the escape of the stone and its forced entrance into the ureter. The possibility, therefore, of a stone becoming detached and released should not be lost sight of lest an additional danger be introduced necessitating a further operation for the recovery of the stone, the presence of which in the ureter or elsewhere has become a matter of certainty.

To return, after this diversion, to the early misgivings I entertained in regard to the future of the operation of nephro-lithotomy, misgivings which were in no degree lessened by the satisfactory result following the removal of this exceptionally large stone. Up to the year 1896 I had operated on 19 patients whose symptoms had led me to diagnose stone in the kidney, exclusive of two in whom unsuspected stones were met with, that, viz., in whose attenuated kidney the large calculus was found, and another who presented similar symptoms of pyonephrosis only and in the pelvis of whose kidney, besides a quantity of pus, two calculi were discovered. In none of the 19 operations was the kidney withdrawn from its normal situation; it had not, indeed, occurred to me that such a procedure was feasible. The plan adopted had hitherto been to expose the kidney by incision through the loin, to strip it anteriorly and posteriorly of its investing fat, to palpate the whole organ, including its pelvis and the upper portion of the ureter, to needle-puncture in every direction those cases in which simple palpation gave negative results, and, finally, to cut directly upon the stone wherever one was discovered, whether in the substance of the kidney, in the pelvis, or in the upper reaches of the ureter. In five cases no stone was then or thereafter found; in one a displaced stone was subsequently extracted through an incision made in the perineal urethra; in two severe hæmorrhage—leading to a fatal nephrectomy in one—followed the incision made directly over the stone through the kidney substance; in two nephrectomy was resorted to for relief from permanent urinary fistula; and in nine recovery was uncomplicated and complete.

About the year 1896, in a conversation with him respecting a patient suffering from advanced tuberculous disease of both kidneys, Mr. Henry Morris stated that he was in the habit of withdrawing the kidney from its bed so as fully to expose it outside the lumbar wound, of splitting the organ into two symmetrical halves by an incision carried from its convex border through to the pelvis with the object of curetting and otherwise treating masses of tubercle, and of returning the kidney to its natural position after having passed three or four catgut sutures deeply through the substance of the organ which he tied with just the amount of force needed to arrest the bleeding. Since that time I have adopted a similar procedure in the removal of stones from the kidney in five cases with most satisfactory results. In none has there been any difficulty in controlling the hæmorrhage; in

all the wounds healed directly and there has been no urinary fistula to complicate the results. Should the future confirm these experiences nephro-lithotomy will have been deprived of two of its chief dangers—those, viz., of severe hæmorrhage at the time of operation and afterwards and of that most troublesome and distressing condition, a leakage of urine through the loin, in addition to which there are the manifest advantages during the operation of a complete inspection of the kidney and its pelvis and the consequent diminished likelihood of overlooking a stone, together with a greatly increased facility of examining the ureter from end to end by means of a probe in case of suspicion that a stone has escaped during the earlier steps of the operation.

To account for the abundant hæmorrhage attendant on an incision through the anterior or the posterior surfaces of the kidney as compared with one made through its centre, splitting it into two symmetrical halves, it is needful only to bear in mind the arrangement and mode of distribution of the renal vessels when once they have entered the organ and the very liberal supply of blood which they receive. The radiating interpyramidal arteries and veins intercommunicating by arches across the pyramidal bases, from which numerous vessels carry the blood to and from the cortex, constitute a plexus which if anywhere cut across pours out blood as freely almost as if the renal vessels themselves were wounded. The further we proceed, on the other hand, from the primary branches of the renal artery into the substance and towards the periphery of the cortex, the smaller the vessels become and the more easily is the bleeding controlled, and thus it follows that an incision carried from the outer border of the kidney straight through its centre to the pelvis, involving fewer of the primary branches, is attended with less hæmorrhage, and that of a kind more easily arrested, than if the incision is made transversely across the organ. So also as regards the formation of urinary fistulæ, incisions made through the comparatively thin walls of the ureter or pelvis, more especially if these be diseased owing to the presence of a stone, are less likely to result in primary union than are the extensive, even, and vascular surfaces of the two halves of the kidney when accurately approximated by deeply placed sutures. It has not, moreover, in every case been necessary to split the entire kidney, but I have not hesitated to do this where such a course has been called for, and in all the incision has been commenced at the convex border and carried down to the pelvis, or so far as has been needed to expose the stone.

In withdrawing the kidney so as to inspect it outside the loin the danger of tearing the pelvis or even of detaching the ureter must not be lost sight of. The former accident actually occurred in my hands, and although by carefully suturing the wound a fistula was avoided, the risk of establishing a permanent leakage is greater when the pelvis is torn than in the case of an incision made for the purpose of extraction, and we have seen that in two cases—in neither of which, it is true, was any attempt made to suture the edges of the incision—this untoward result was brought about. The pelvis which has been long occupied by a stone and has thereby become attenuated, and more especially if the seat of a pyonephrosis, will be likely to give way more readily to the stretching than one in a state of health, and the wound in it will, moreover, be less likely to close no matter how carefully sutured. Bearing these possibilities in mind, the withdrawal and exposure of the kidney followed by the operation of splitting, muffin-like, is calculated, I feel sure, not only to facilitate the removal of stones from the interior of the kidney, but to render the operation safer and more effective.

In no single branch of surgery have more important changes and improvements been made during recent years than in the method of dealing with stone in the bladder. Within the recollection of every middle-aged surgeon a complete revolution, indeed, has been witnessed, and it may be considered not altogether inappropriate if, after having indicated the method of dealing with calculus in the kidney which in my hands has given the best results, I conclude by making a few observations upon the present and former procedures made use of for the removal of stones from the bladder. Only a little while ago the choice lay between perineal lithotomy and lithotrity as practised by Civiale.[•] It is doubtful if at the present day half-a-dozen hospital surgeons could be found in this country who are in the habit of performing either operation. During several generations lateral lithotomy stood at the head of the list of the surgeon's performances, and few of the elders amongst us can fail to feel a pang of regret on looking back to the days when students and other onlookers anxiously watched whilst the surgeon with more or less precision and rapidity relieved his patient of the stone. Lateral lithotomy was the accepted test of the surgeon's claim to pre-eminence as an operator, and few, I imagine, ever experienced an entire absence of nervousness when about to undertake its performance. The oldest, most experienced, and most successful lithotomist of my acquaintance published a confession that he invariably suffered from a feeling of nervousness when about to undertake the removal of a stone, and as on no other occasion was he the subject of fears or qualms he termed it his "lithotomy feeling." There was good excuse for this. So many pitfalls surround the operation as to make it a matter of relief when it is safely completed; so many excellent operators have failed once at least in bringing about a successful issue. The traditions of almost every large hospital contain at least one example of failure. I have myself seen one of the ablest surgeons of his day remove a stone of considerable size by this operation from an adult in whom, post mortem, it was found that neither urethra, nor prostate, nor rectum had been wounded, a result which elicited from an enthusiastic admirer the remark that the operator was probably the only surgeon in England who was capable of performing such a feat. Notwithstanding the difficulties and dangers attendant upon the operation itself, the occasional occurrence of unpleasant sequelæ, and the mortality, amounting in the best hands to one in eight, and in spite of the many attempts at modification—bilateral incision, median incision, the use of a curved, of a straight, or of a rectangular staff—lateral lithotomy maintained its position at the head of cutting operations for stone until within 20 years of the present time.

Lithotrity, in the hands of a few skilful manipulators, from the time of its introduction, about the middle of the first half of last century, gradually increased in favour as the instruments for crushing and evacuation were improved, but it cannot be said at any time to have rivalled the cutting operation, being for the most part reserved for those comparatively few favourable cases in which the stone was small and the organs were generally healthy. It was not until the gradual development of lithotrity into the more complete litholapaxy at the hands of Bigelow, nearly a quarter of a century ago, and the almost simultaneous revival of suprapubic lithotomy, that the doom of lithotrity and of lateral lithotomy was sealed.

The manifest advantages and the vastly increased safety secured by removing at a single sitting the crushed fragments of a stone, whether small or of a considerable size, the precision and certainty with which the bladder was opened, digitally explored and even inspected through an anterior incision, were not long in obtaining for the two new operations an established position, and at the present time I shall not be far wrong in saying that with very few exceptions litholapaxy or suprapubic lithotomy is chosen in every case of vesical calculus whether in male or female, in child or adult; and litholapaxy claims first consideration. There must be some good reason for deciding upon lithotomy in preference to litholapaxy now that the latter operation in skilled hands and in well-selected cases is attended with so little danger and incurs so brief a period of disability. The mortality, no doubt, after either method of extracting a stone depends less upon the nature of the operation itself than upon the presence or absence of complications. Apart from the general health and strength and age of the patient, the size and composition of the stone, the capacity of the urethra, the presence or absence of prostatic enlargement and of inflammatory disease in bladder or kidneys, must materially influence the results. In a perfectly uncomplicated case, one in which a successful issue may be expected from either operation, litholapaxy would naturally be chosen as involving less mutilation and a less prolonged period of convalescence. Some complications there are which, apart from other considerations, entirely negative the less serious procedure; such, for instance, is the presence of an advanced stricture in any part of the urethra beyond the meatus, with which I may class an abnormally narrow urethra, one which admits only an instrument altogether disproportionate to the size of the stone. I have met with one instance in a generally ill-developed man of middle age whose urethra, though showing no signs of disease past or present, would not, even after the slitting of the meatus, admit the smallest sized lithotrite I possessed. The presence of advanced prostatic disease may be, I think,

rightly held to exclude litholapaxy, not so much on account of the obstruction it presents to the free use of the lithotrite and evacuator, or on account of its liability to injury, but chiefly because by adopting the suprapubic operation an opportunity is afforded for dealing radically with the prostate as well as for removing the stone.

There are calculi too large to be crushed, and a few—I have met with two such—so hard as to resist the most strenuous efforts to break them. The presence of cystitis, if of long standing, must be held, certainly if the stone be of more than moderate size, to contra-indicate the crushing of the stone, seeing that a prolonged operation involving more or less injury to the bladder would incur the risk of converting a mild into an acute and relatively dangerous state of inflammation; and finally, in the case of an encysted calculus, litholapaxy may be considered to be wholly inapplicable, not only because of the difficulty, for the most part insuperable, of releasing the stone from its pouch and of effectually breaking it into fragments which shall be accessible to the aspirator, but also because of the intense cystitis which, so far as my observation extends, is a marked feature in cases of encysted calculus. In these the superiority of suprapubic lithotomy over any other form of operation is abundantly manifest, and seeing that I have met with three such cases, whilst the total number successfully operated on is very small, I desire here to place them on record. The first was that of a young man of very poor physique in whom the sound struck a stone the moment it entered the bladder. His symptoms had been of long duration and markedly pronounced, so that I concluded that the stone was large. A lithotrite passed into the bladder grazed the under surface of the stone, but all attempts to seize it proved futile. With the left forefinger in the rectum and my right hand placed on the lower abdomen I could distinctly feel the projecting calculus fixed beneath the pubic arch. Here was a combination of circumstances which might be said to invite an attack from above, and accordingly I proceeded at once to perform my first suprapubic lithotomy. Sir Henry Thompson had but a

FIG. 3.

Sagittal section to the left of the middle line through the pelvis, showing an encysted calculus in the bladder beneath the pubic arch and to the left side, removed by suprapubic lithotomy from a young man. (Weight, seven drachms.)

few months before described the operation in detail, and I followed in the main the directions which he had given. On inserting my finger through the suprapubic opening it immediately impinged upon a stone slightly projecting on the left of the urethra. A further examination revealed the fact that the calculus was imbedded to about three-fourths of its extent in a sacculus occupying a space below the pubic arch and between it and the prostatic urethra. (Fig. 3.) From this hollow it was shelled out by means of a scoop and the finger and then readily removed. I do not believe that by any other operation the stone could have been extracted. No finger could have done more than touch the exposed end if introduced through the perineum, nor could any lithotrite have been made to grasp the stone between its blades. Of further complications there were none, and the patient's recovery was uninterrupted. The second case, which came under observation at the infirmary in 1888, was in a man 73 years of age. His urethra, owing to what was supposed to be an enormously enlarged prostate, did not readily admit a sound, and on that account, as also because of his advanced age, the severity of his symptoms, the presence of a considerable amount of muco-pus in the urine, and the fact that his bladder retained from six to eight ounces of residual urine, the suprapubic operation was decided upon. A globular oxalate calculus weighing 13 drachms was removed from a pouch at the base of the bladder situated on the right of the middle line, which concealed all but the slightly projecting surface of the stone. (Fig. 4.)

FIG. 4.

Sagittal section to the right of the middle line through the pelvis, showing an encysted calculus on the right of the base of the bladder and a projecting middle lobe of the prostate in a man, aged 73 years, both removed by suprapubic lithotomy. (Weight of calculus, 13 drachms.)

This it was which had led to the supposition of his prostate being largely hypertrophied. As a matter of fact the prostate was enlarged, but the hypertrophy was confined to the middle lobe, which, projecting upwards in such a manner as to obstruct the urethral entrance, was removed. Recovery followed. The third case came under my care in 1899. The patient, aged 60 years, after having long suffered from painful micturition had the misfortune whilst following his occupation to crush his perineum by falling from a height astride a beam. Urethral laceration, attended by copious hæmorrhage, was followed by a troublesome stricture which added considerably to his urinary difficulties and suffering. Prior to the accident he had undergone treatment for cystitis. When brought under my observation some months after his accident his condition was most unpromising. His urine, passed guttatim, was purulent and offensive. He was sallow, thin, and devoid of appetite. As a No. 3 gum elastic catheter had been occasionally passed with temporary relief and without exciting any febrile disturbance I began gently to dilate the stricture by means of Lister's sounds, beginning with 2–5. Before I had proceeded far the sound struck a stone, and thus I found myself in face of an added difficulty. My first impulse was to perform external urethrotomy and to extract the stone through the median incision, but as for this I was not

prepared proceedings in that direction were arrested. Further dilatation enabled me to make a closer and more detailed examination. First I satisfied myself of the facility with which a free dilatation of the urethra could be accomplished; then I was able to make out by means of the sound that the stone was of considerable size, that it lay on the left at the base of the bladder, that it was fixed in its position, and lastly, by means of the finger in the rectum, that it projected backwards beyond the prostate towards the sacrum and was probably situated in a pouch. On a subsequent day I opened the bladder above the pubes and removed a calculus weighing 10 drachms from a pouch situated as I have just described, which inclosed almost the entire stone, leaving only a segment of its surface exposed. His future course and recovery were uneventful. (Fig. 5.)

FIG. 5.

Sagittal section to the left of the middle line through the pelvis, showing an encysted calculus on the left of the base of the bladder, removed by suprapubic lithotomy from a man, aged 60 years. (Weight of calculus, 10 drachms.)

The success attendant upon these cases thus briefly narrated, together with the facility with which the stones, though deeply imbedded in the bladder wall, were extracted, weigh much with me in estimating the relative value of the several modes of performing lithotomy. In the first case, as I have already remarked, by no other route could the stone have been removed; in the other two the difficulties of their extraction through the perineum must have been well-nigh insurmountable, whilst in none of the three would it have been possible to grasp the stone within the blades of a lithotrite.

Up to the year 1883 perineal lithotomy, lithotrity, or a combination of the two in the case of a very large stone, was adopted in my practice in every case, lithotrity being reserved for the smallest stones in adults whose general conditions were favourable, median perineal lithotomy selected for small stones in children, and lateral or very rarely bilateral lithotomy for medium-sized and large stones at all ages. From 1883 to 1890 was a period of transition. Litholapaxy was rapidly superseding lithotrity, and the suprapubic lithotomy was with almost general consent replacing the perineal operation. Since 1890 my practice has been without exception limited to the two operations, litholapaxy and suprapubic lithotomy—to the former whenever I have found it reasonably practicable, irrespectively of the age of the patient and to a great extent of the size of the stone; to the latter whenever existing conditions were such as definitely to forbid the use of the lithotrite and aspirator, and in a few instances in which the weight of evidence seemed to favour the shorter, if on the whole severer, measure. With these two operations and their results I feel much reason to be satisfied; and although finality is no more applicable to the treatment of stone in the bladder than to other surgical problems I feel little doubt that in the near future any improvement in our means of dealing with calculous formations must be directed to the perfecting of our present methods of procedure rather than to the discovery of new operations or the revision and revival of the old. Perineal lithotomy, associated though it has been with many generations of the greatest surgeons in the world, up to a few years ago universally held to be the most important operation in surgery, is now all but relegated to the past, lingering only, I believe, in the hands of the few, and is doomed almost certainly to become ere long a subject for the historian alone.

The three subjects upon which I have so cursorily discoursed are not the least important amongst the many which have exercised, and still are exercising, the minds of the present generation of surgeons. In each there is much need for increased experience and for wider observation, and if my small contribution be considered at all worthy of the acceptance of this audience I shall feel myself more than rewarded

An Address
ON
A MODEL HOSPITAL.

Delivered at the Opening of the New Victoria Wing for Out-patients at Bolingbroke Hospital, Wandsworth Common, on Dec. 11th, 1901,

BY THOMAS BRYANT, F.R.C.S. ENG., M.CH. R.U.I.,

SURGEON-IN-ORDINARY TO THE KING; SURGEON TO BOLINGBROKE HOSPITAL; CONSULTING SURGEON TO GUY'S HOSPITAL, &C.

CANON ERSKINE CLARKE, LADIES AND GENTLEMEN,—I accepted with much pleasure the invitation of the governors of this hospital to open to-day its new out-patient department, as I have been connected with the hospital for more than 12 years and cordially appreciate the way in which it has been worked and is now conducted. I might recently have regretted that the main object its founder had in view has from the wants of the neighbourhood been obliged to take a back place, but I bow with respect to the necessities of the position and will, with my colleagues, do our best to work the hospital under its new conditions. The hospital, as most of you know, was founded in the year 1880, with the praiseworthy object of helping those who were willing and able to help themselves; for its founder, and our life-long President, our friend the Rev. Canon Erskine Clarke, fully recognised the fact that the free hospital system as generally established, though full of good influences, had a tendency to sap the self-reliant manhood and womanhood of the poorer classes, which it is so right to foster, and consequently to pauperise a large section of the well-to-do artisans and others who have the inclination and power to pay part of their cost when they are compelled to seek hospital treatment. With this well-conceived object this mansion was purchased, fitted up, and opened as a self-supporting hospital by Canon Clarke at his own risk, but with the aid of contributions, and with the hope that a sufficient number of patients would be found able to pay more than their cost, so that others might pay less, and that thus the hospital would be maintained. For 16 years the hospital was carried on upon these lines, with fluctuating and variable success, and during this period the founder had to advance large sums of money to keep it going. For the last three years of this period, also, great pressure from the outside leaders of labour was brought to bear upon the hospital authorities to change its constitution so that accidents might be admitted to its wards and out-patient casualties be attended to—for during these years Battersea had been rapidly growing and had become an important manufacturing centre, and it was naturally felt that with a hospital on Wandsworth Common it was rather hard, and in a measure detrimental to those who were the

subjects of accidents, to be denied access to the surgical treatment which was possible at their Home, Bolingbroke Hospital, and to be sent for treatment to St. George's Hospital, St. Thomas's Hospital, or Guy's Hospital, which were from four to five miles distant. Under this pressure and with a full appreciation of the urgent requirements of Battersea the governors of this hospital felt called upon to change in a measure the hospital as a self-supporting institution in to what it has since become—a free hospital for the admission of accidents and emergencies supported by voluntary contributions, relegating with regret the paying class into a less prominent position, although wisely still retaining it.

The following facts will help you to understand why the governors of the hospital were influenced and how necessary the change in the constitution of the institution had become, for in the course of the latter five months of the year 1893, when the change of practice commenced as an experiment, seven patients were as subjects of accident admitted into the hospital and 217 attendances of patients were given as out-patients. In 1894 there were 19 admissions and 980 attendances; in 1895 there were 64 admissions and 1784 attendances; and in 1896 there were 105 admissions and 3719 attendances—this year being the last of the old *régime*, for in December, 1896, the hospital became incorporated, and in 1897 the present home and free accident hospital for the treatment of in- and out-patients was practically started. How it has progressed since that date and how much the district appreciated the hospital the following figures well prove, for in 1897, the first year of its incorporation, there were 179 admissions and 9139 attendances; in 1898 there were 219 admissions and 13,668 attendances; in 1899 there were 217 admissions and 14,142 attendances; in 1900 there were 255 admissions and 15,162 attendances of 3206 new free patients. And in the 10 months of the year 1901 there have been 334 admissions, and far larger figures of attendances, whilst the attendances of cases of throat and ear diseases during this same period ran up from 148 in 1894 to 1108 in 1899.

This hospital is now, therefore, practically a free hospital for accidents and emergencies and its board of management looks to the inhabitants of this large industrial district with a population computed at 500,000 and their friends for the financial support which is not only essential to enable it to carry out its present functions, but to meet the rapidly growing requirements of the future. It is true that the new building which we have this day met to open will do much to facilitate the work of the out-patient department which has hither o been carried on under grievous difficulties, but it will do no more. We want, and urgently want, more free beds for accidents as well as for the diseases which follow accidents, for at the present time we have but 30. In the excellent scheme which has been designed for future buildings, and which is displayed to-day for your inspection, these wants will be met. It has been drawn up by the medical staff under the supervision of Mr. Keith Young and is in every particular up to date. The scheme only wants your pecuniary support to enable it to be carried out, and I most strenuously urge your early attention to this great requirement. To defray the cost of this new out-patient department about £6000 have been wanted. A large proportion of this sum has been collected, including two liberal donations from the Prince of Wales's Fund; but a balance of at least £600 is needed to allow the governors to start clear of debt. Much more money will necessarily be required to complete the building as proposed, but it can be carried out piecemeal; and from the drawings you will learn that it can be done in three blocks. Each block may have its own name. The one which we have to declare open to-day will be the "Victoria Wing"—what better name could be found, for in the word "Victoria" all human goodness seems to be embodied as in the personal qualities of our late lamented sovereign. May other names implying as much be speedily attached to the blocks to be added, and may the blocks be reared higher. Let us hope that there will be some competition to secure the honour of having names attached to the blocks; there are only three that can be so associated. I wish that I could be one of the competitors for fame, for nothing would give me greater pleasure than having my name associated as its founder with such a block, but I am not a wealthy manufacturer and have more to do with mending broken things and helping lame dogs over stiles than making anything; but I envy those who have the means, and they are many, and I at any rate have a pleasure in pointing out to those who have the power and will to do good the means of immortalising their names by such a work.

And here I must draw your attention to a special feature in the working of this hospital which in the past has been the secret of its success and in the future is not likely to be of less value—and that is the invaluable coöperation of the medical practitioners of the district in carrying on the hospital work. Indeed, I look upon this institution as an object lesson which has proved how by a little tact and useful methods a hospital can be made popular to the medical as well as to the lay classes without any loss of usefulness and with mutual advantages. In 1893, when the pressure from without the hospital was brought to bear upon the governors to admit and to treat accidents, the question was referred by the governors to the local medical practitioners, and at a meeting of these gentlemen with the resident medical officer, Mr. C. R. C. Lyster, whose tact and influence are of a high order, the following rules were drawn up:—

1. Emergency cases to be attended at once.
2. If possible patients after being attended are to be sent home to be under the charge of their own medical man.
3. If unable to leave the hospital the patient's own doctor will be so informed, in order that he may take charge of the case if found expedient.
4. The doctor of all in-patients to be consulted as to their means of paying either the whole or part of their cost while in the hospital.
5. Cases not sufficiently serious to be admitted as in-patients, and yet requiring dressing and attendance which they are unable to pay for, will be treated at the hospital free on the written request of their own doctor.

These rules were subsequently accepted by the board and passed and adopted as the rules for attending accidents. Indeed, all accident cases have been attended under these rules for the three years antecedent to the date of the incorporation of the hospital in 1896, and, in fact, have been so ever since they were originally made.

The leading principle upon which this hospital was originally founded and upon which it has been incorporated as an association is as follows: to provide accommodation for the reception of in-patients and treatment of out-patients suffering from disease, accident, or injury who are *unable to pay*, as well as those who are *willing to pay* wholly or in part, but that no patient shall be admitted (unless from accident or emergency) except on the recommendation of a duly qualified medical practitioner. The governors of the hospital entirely approve of this principle and strongly support it. In their report for 1900 they say: "The system of referring the out-patient cases to a medical practitioner in the neighbourhood in which they are resident in order to ascertain if the case is suitable for hospital treatment continues to work effectively and without friction, and the governors are satisfied that it prevents the abuse of the hospital by those whose circumstances permit of their paying a medical man"; and this opinion I cheerfully endorse.

The principles upon which the hospital has been incorporated are somewhat novel, and to the governors of our large general hospitals they may seem difficult to act upon or unsound; but if such thoughts exist in the minds of any of those who have honoured us by their presence on this occasion I can assure them that they are wrong, for it is not possible for any hospital to work more smoothly with the public and harmoniously with the medical officers of the district than this has done. Between July 1st of this year and Oct. 24th, a period of less than four months, 92 different local practitioners sent patients for treatment, numbering 322 cases; no difficulty has arisen in any case and no charge against the hospital of treating unsuitable cases has ever been made. The medical practitioners of the district look upon the institution as an acquisition and do their best to raise funds for its support and extension. I am quite unable to bring forward any instance in which there has been a difficulty with a local medical practitioner and the presence of so many busy medical men here to-day must tend to support this statement. Of the 344 cases admitted from Jan. 1st to Oct. 31st, 1901, 266 were free and 68 were paying cases, or about one case in five. In-patients who are able to contribute towards their cost pay from one to two guineas a week for their bed and board, whilst accident cases are all admitted free, although a few of these patients ask to be placed upon the paying list. It should be added that now and then a patient of good means can be admitted into a private room for an operation who is able to pay three, four, or five guineas for the accommodation, and who, of course, pays the fees arranged for by the

surgeon under whom he or she is admitted. It is to be regretted that at the present time these rooms are too few, and it is to be hoped that in the near future more may be provided, for such accommodation has valuable advantages to all who can utilise it.

The patients who are admitted into the hospital come from an area covered by a circle which radiates about six miles from the building; some come from far distances for special reasons. The out-patients are largely Battersea and Wandsworth people. General medical cases are neither admitted nor seen as out-patients, nor are any specific contagious or infectious diseases; such patients when they apply are referred either to their own medical men or to some hospital. 276 of these have been passed on during the 10 months of this year.

I have thus, gentlemen, briefly explained to you how this hospital came into being, and how from the wants of the neighbourhood it had in the course of years to yield part of its original constitution and to become practically a free hospital for accidents and emergencies. All its special features are worthy of your strongest support, for all are sound in principle and in this hospital have been proved sound in practice. In opening this "Victoria Wing" for out-patient work I must congratulate you upon doing so under the pleasant feeling that you have almost enough funds in hand to pay for it and to equip it. That it will be most beneficial for the work of the hospital I can vouch, for I know what good work has been done under the difficult circumstances which Mr. Lyster and his able helps have had to contend against, and with such arrangements as have been provided for the future the work must even be improved. But I must remind you that what has been done is but a promise of what in the near future has to be done, and that is the completion of the plan which has been laid before you. Until that is completed by no means rest on your oars, but pull on with all your force. The employers of labour in Battersea have through their influence upon the governors of the old hospital, where such good work was done, forced them as it were, by the weight of argument, the logic of facts, and the persistent expression of the wants of their people, to turn the hospital into a free one, with all its risks and responsibilities. The workers at the hospital are quite prepared to undertake all its professional and nursing responsibilities, and, indeed, to accept all risks, except one, and that is its financial responsibilities; these we must throw entirely upon the shoulders of the leaders of labour who by their action have brought about this change and the friends with whom they have influence. In saying this I will express my belief that we shall not do this in vain, for the interest which is taken by these leaders of labour, the tradesmen of the neighbourhood, the artizans and the gentry of the district, is so sound and earnest that we do not doubt, now that the hospital is established upon a free basis, that all will pull together with one object, and that is to get together a fund sufficient for the hospital to pay its way and to build the three wings as soon as possible.

Canon Erskine Clarke, ladies and gentlemen, I now declare this new wing, which is to be called the "Victoria Wing," open from this day—and may God bless the work which is to be done there.

ON DUODENAL ULCER AND ITS SURGICAL TREATMENT.

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DUODENAL ULCER.

ULCERATION of the duodenum may be acute or chronic—acute when there is a rapid destruction, tending to perforation, of the wall, and chronic when the symptoms are latent or subdued and the pathological processes which cause them are altogether passive. Possibly the two forms are often expressions of the same disease, the acute ulcer, with a rapidity and completeness of invasion that suggest an infective origin being the earlier stage of a chronic ulcer in which an attempt is made to check and to repair the ruin which has been wrought. Within the last few years duodenal ulcers have come more closely under the observation of the surgeon. Acute ulcers have led to perforation; chronic ulcers have caused repeated attacks of hæmorrhage or in their healing have so narrowed the bowel that surgical methods alone have been able to afford relief. As our capacity for dealing effectively with any of these complications has increased, so also and concomitantly have our opportunities increased.

Position of the ulcer.—Duodenal ulcers are generally situated in the first portion of the duodenum. Collin found in a series of 262 cases that 242 were placed in the first portion, 14 in the second, three in the third, and three in the fourth. Perry and Shaw found that in 149 cases 123 were situated in the first portion, 16 in the second, two in the third and fourth; in eight cases the ulcers were scattered. Oppenheimer states that in 81 cases 69 were situated in the first part, eight in the second, and four in the third and fourth. Ulcers in the first portion of the duodenum, then, are at least ten times more frequent than in the second. In the majority of cases the ulcers are solitary. If multiple they are usually crowded together in the first portion; but ulcers in the first portion associated with others in the second or third are recorded by Clark, Schwartz, and Dudensing. When two ulcers are present they are not infrequently opposed, those portions of the wall being affected which lie in contact. A similar opposition is, of course, not seldom observed in the stomach. The frequency of such a condition is suggestive of infection. Ulcers in various stages of activity may co-exist. An acute perforating ulcer may be found with a chronic ulcer or either with the scars and puckers of healed ulcers.

Age.—Patients of all ages may be affected. Oppenheimer has collected 15 cases of "melæna neonatorum," resulting from duodenal ulcer. Chvostek found ulcers present in children three hours, four days, and seven weeks old. Ulcer in the new-born child is described by Henoch, Zerschwitz, and Dusser. Krannhals relates the case of a child five years of age who died from dysentery. Ulceration was present in the duodenum; the rest of the small intestine was healthy. Haman records a case of the traumatic rupture of an ulcer in a child of 10 years of age. Clark records cases of perforation in patients 19 years and 20 years of age. Krannhals observed a case in a female 79 years old, and Merkel found an ulcer in the duodenum of an old woman, aged 94 years.

Sex.—All observers are agreed that men are much more frequently affected than women, though they vary in the estimates of their relative susceptibility. Taking the statistics of Collin, Perry and Shaw, Trier, Krauss, Chvostek, and Oppenheimer, all of whom have recorded over 50 cases, we have a total of 645 patients, 508 men and 137 women. We may therefore assess the proportion at four males to one female. The cause of the greater frequency of the affection in men is, with our present knowledge, quite inexplicable. Gastric and duodenal ulcers may be present at the same time. Such an occurrence has been described by Rokitansky, Finlayson, and Oppenheimer, and is noted in the records of two of the patients upon whom I have operated.

SYMPTOMS.

The symptoms of duodenal ulcer are chiefly characterised by their lack of ostentation. In more than half of the cases where ulceration is found at the necropsy symptoms have never been present. In 151 cases collected by Perry and Shaw in which duodenal ulceration was found post mortem there were 91 in which there were no antecedent symptoms. Every author that I have consulted emphasises the "latency" or the "torpidity" of the disease. Symptoms when present may be of an indifferent type or may resemble closely those aroused by ulcer of the stomach. The co-existence of the two forms of ulceration, gastric and duodenal, would seem from my experience to be more frequent than is generally believed, and the apparent confusion in the symptoms of certain cases may be dependent upon the simultaneous presence of both forms of ulcer. The cardinal symptoms are (1) pain, (2) hæmatemesis, and (3) melæna.

1. *Pain* is generally experienced one hour or more after the taking of food, and is referred to the epigastrium, or the right hypochondrium, or indefinitely to the upper part of the abdomen. It is variable in intensity, and though generally trivial and hardly more than a sense of discomfort or vague uneasiness, it may be acute, persistent, and at times almost intolerable. I am disposed to think that reliance may in general be placed upon the time of onset of pain after food

as indicating the position of an ulcer in the stomach or duodenum, and that, as a rule, the nearer the ulcer to the cardia the more swift is the onset of pain. The researches of Professor Birmingham on the anatomy of the stomach enable one to understand the reasons for this. Unless a duodenal ulcer is associated with a gastric ulcer the pain does not appear for from two to three or four hours. Pains radiating to the right shoulder or to the side and back are occasionally noted. It has been said that the drinking of alcoholic fluids increases or elicits the pain.

2. *Hæmatemesis* is an occasional and rather erratic symptom. Vomiting is observed approximately in one-third of the cases. In Perry and Shaw's series of 60 cases presenting symptoms hæmatemesis was present in 14. The bleeding is rarely severe. The characteristic vomiting of duodenal ulcer comes on about two hours or more after food, and bile is not seldom observed in the ejected matter.

3. *Melæna* is not improbably overlooked in a large number of cases, more especially when the intestinal hæmorrhage has been slight. When the vessel opened is large the bleeding may be copious and may induce faintness and subsequent temporary anæmia (see Case 4 of my list). If a large arterial or venous trunk is opened the hæmorrhage may be overwhelming and lethal. Melæna was observed in nine of Perry and Shaw's 60 cases. Oppenheimer found blood in the stools of exactly half of his patients. The examination of the stools for small quantities of blood is so unusual a research in a general hospital that we must indisputably allow that entorrhagia may often pass unnoticed.

THE COMPLICATIONS OF DUODENAL ULCER.

The following are the chief complications of duodenal ulcer: (1) profuse hæmorrhage; (2) perforation (acute, subacute, and chronic); (3) cicatricial contraction and induration and their sequelæ; (4) periduodenitis; and (5) cancer. In 20 fatal cases collected by Perry and Shaw nine patients died from hæmorrhage, eight from perforation, and three from cicatricial contraction of the duodenum or bile-duct.

1. *Hæmorrhage* is seen more frequently and in larger quantity in chronic ulcer. The vessels affected may be those in the wall of the bowel or any of the larger arteries or veins in the neighbourhood. Ulceration into the following arteries has been recorded: aorta (Stich, Grunfeld), hepatic (Broussais), gastro-duodenal (Leeds Museum), superior pancreatico-duodenal (Allchin, Wunderlich), and the pyloric, pancreatica magna, gastro-epiploica dextra, and into the vena porta (Rayer and Habershon) and the superior mesenteric vein (Warfwinge).

2. *Perforation.*—A duodenal ulcer may perforate at once and acutely into the peritoneal cavity or may slowly destroy all the coats of the bowel and lead to the formation of a localised encysted abscess. If the former, the fluid escaping from the viscus is free to run at large in the peritoneal cavity. In many of the cases, as is seen from a study of the records and was exemplified in Case 2 recorded below, a well-defined path is taken. The fluid (generally mucus more or less tinged with bile) escapes on to the upper surface of the transverse mesocolon to the right of the hillock which is formed by the fitting in of the transverse colon to the greater curvature of the stomach (see Figure).

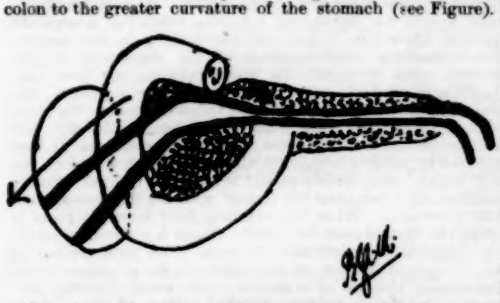

Diagram to illustrate the obliquity of the transverse mesocolon on the right side. Fluids escaping from the first portion, or the upper half of the second portion, of the duodenum gravitate to the right kidney pouch and thence to the right iliac fossa.

It therefore tends to run to the right to the hepatic flexure, and then to descend along the outer side of the ascending colon to the iliac fossa. There collecting it may cause symptoms strongly suggestive of appendicitis. From the iliac fossa the fluid drains to the pelvis, and filling that overflows into the left iliac fossa. If an abscess forms it may be bounded by lymph, by the liver, or by intestines. Meunier describes a local abscess in his case as being bounded by the quadrate lobe of the liver, the gall-bladder, and the transverse mesocolon. Lennander relates a case where an abscess was hemmed in on all sides by intestine. The perforation of such an abscess may lead to acute septic generalised peritonitis as recorded by Planchard. Perforation of the upper portion of the duodenum may lead to subphrenic abscess. Seven cases of this kind are related in Maydl's monograph. An ulcer may destroy all the coats of the bowel and its base be formed by the liver (Keyl, Herzfelder, Collin), or by the gall-bladder (Krauss, Moynihan). An ulcer may destroy all the coats of the bowel and perforate a hollow viscus forming an "internal duodenal fistula." Rokitansky describes a case of gastro-duodenal fistula, Hoffman and Gross cases of cholecysto-duodenal fistulæ, Murchison, West, and Sanderson cases of duodeno-colic fistulæ, and Dudensing a case where the ulcer had perforated the pancreatic duct. An ulcer may destroy all the coats and lead to the formation of an abscess which bursts upon the surface of the body, forming an "external duodenal fistula," as recorded by Lumeau and Bucquoy. The duodenal wall may be ulcerated through by an abscess arising from without, as in a case of lumbar abscess bursting into the duodenum close to the biliary papilla, under the care of Davies-Colley.[1]

3. *Cicatricial contraction and induration and their sequelæ.*—All ulcers of the duodenum in their healing tend naturally to contract. The results of such contraction will necessarily depend upon the position of the ulcer. If the ulcer has been in the first portion the narrowing of the lumen will result, as in pyloric stenosis, in dilatation of the stomach; if in the second portion there may be a dilatation of the duodenum and the stomach; or if the ulcer has invaded the bile-papilla a narrowing or obliteration of the common bile-duct and pancreatic duct. Four examples of this are quoted by Perry and Shaw, and a case is related by Swensson[2] in which cholecystenterostomy was performed. If the ulcer is in the third or fourth portions a dilatation of the duodenum and the stomach may result (Rewidzow). The contraction of the inflammatory material in and around an ulcer may affect the structures in the immediate neighbourhood. Collin describes a case of thrombosis and cicatricial ligature of the vena porta caused in this manner.

4. *Periduodenitis* may originate in the localised peritonitis at the base of a duodenal ulcer, from chronic perforation of an ulcer, or from causes primarily unconnected with the duodenum. Of the latter the most common is dependent upon disease of the gall-bladder or bile-ducts. Chronic pancreatitis or malignant disease of the head of the pancreas, following long-continued gall-stone irritation, may also cause the pouring out of inflammatory products by the peritoneum.

5. *Cancer.*—The cancerous transformation in chronic ulcers of the stomach is now a well-recognised pathological change. A similar condition of "ulcus carcinomatosum" has been observed in connexion with chronic duodenal ulcer. Cases are related by Ewald, Schrötter, and Mackenzie. Five cases are quoted by Perry and Shaw, but in no case is the description convincing and I should be disposed to question their claim to acceptance.

THE SYMPTOMS OF ACUTE PERFORATION.

The symptoms of an acute perforation differ at the first but little, if at all, from those which follow the perforation of a gastric ulcer. There is the same sudden, intolerable, and overwhelming pain; there are rigidity and tenderness of the abdomen and profound collapse. In duodenal ulcer there is said to be a disposition to localise the pain in the right hypochondrium rather than in the epigastrium, but the records of published cases, and of my own cases, do not support this. As in gastric ulcer, so in duodenal, the sudden, terrible pain may induce a collapse which proves almost immediately fatal. A few years ago I performed a post-mortem examination for the coroner on a young man who had died suddenly. I found a perforation of the duodenum just beyond the pylorus. The relatives, when pointedly asked, affirmed that the patient had never suffered from any gastric or intestinal disorder.

After the first shock has passed the symptoms and signs

[1] Guy's Hospital Reports, 1893, p. 573.
[2] Hygeia, Stockholm, 1888.

of gastric and duodenal perforation differ in their development. When the ulcer is in the stomach the signs are those of general peritoneal inflammation; when the ulcer is duodenal the course taken by extravasated fluids leads to a more acute and an earlier involvement of the peritoneum on the right side and in the right iliac fossa. The clinical picture of appendicitis is copied with such accuracy that in the 49 recorded cases tabulated in my list, in 18 the first incision was made over the appendix, after a diagnosis of acute appendicitis had been made. In the final stage the peritoneal infection is universal.

TREATMENT.

The medical treatment of duodenal ulcer should be carried out with the same persistence and care as are needed in treating ulcers of the stomach. Surgical treatment may be called for: (1) when an acute ulcer perforates; (2) when subacute or chronic perforation leads to periduodenal or subphrenic abscesses; (3) in chronic ulcer when pain and gastrorrhagia, or enterorrhagia are persistent and disabling; and (4) when cicatricial contraction and induration or periduodenitis have caused narrowing of the calibre of the gut and dilatation of the stomach or of the stomach and that part of the duodenum behind the stricture.

1. *When an acute ulcer perforates.*—There are on record 49 cases of operation for acute perforation of a duodenal ulcer. I have operated upon two cases, making a total of 51. In 18 of these cases a diagnosis of appendicitis was made; in two cases only, that recorded by Perkins and Wallace and in my first case, was a correct diagnosis achieved. The following are the notes of my two cases:—

CASE 1.—The patient, a male, aged 44 years, was admitted under my care into the Leeds Infirmary on April 24th, 1900, and was sent by Mr. H. de P. Veale of Drighlington. The patient was a morose individual of deficient intelligence, and a history was therefore difficult to elicit. Symptoms had been present for 18 months; the chief of them was pain, experienced after food, two, three, or four hours after, beginning in the right hypochondrium and spreading upwards and downwards. Blood had been observed when the patient vomited; vomiting was frequent but irregular, occurring sometimes within half an hour of a meal, sometimes four hours after. There was no melæna. The patient was kept under observation until May 25th. His pain was evidently most severe and directly influenced by the taking of food. A diagnosis of duodenal ulcer which had been made by Mr. Veale was confirmed and gastro-enterostomy was advised. On the 25th the man became suddenly worse. Pain was complained of over the whole abdomen which was tight, and the abdominal muscles barely moved with respiration. The pulse was 128, the respirations were 28, and collapse was pronounced. Clearly a perforation had taken place. The abdomen was opened and a duodenal ulcer with a perforation about three-quarters of an inch in diameter was found at the beginning of the second portion of the gut. There was commencing peritonitis. The stitches which were introduced to close the ulcer held very imperfectly. After stitching the gut seemed narrowed to at least half its diameter. A gastro-enterostomy was therefore done, a Murphy button being used. The abdomen was cleansed by sponging and a tube with gauze was passed down to the ulcer. The patient never rallied from his collapse and died on May 26th.

CASE 2.—The patient, a male, aged 25 years, was admitted into the Leeds Infirmary on June 18th, 1901, under the care of Mr. W. H. Brown, who kindly gave me charge of the case. The patient, a sturdy, robust labourer, stated that for about four weeks before admission he had experienced pain after food and had vomited. The pain came on either immediately after the taking of food or about from three to four hours subsequently. Vomiting occurred almost immediately after the end of a meal. At 5 P.M. on June 18th, while climbing a ladder, he felt a sudden acute pain in the upper part of the abdomen in the middle line. He reached the top of the ladder, deposited his load, and descended. On reaching the ground he fell and doubled himself up in agony. He was seen by Dr. L. A. Rowden of Roundhay, who sent him at once in his carriage to the infirmary. On admission the patient was profoundly collapsed. The abdomen was exquisitely tender and the muscles formed so rigid a protecting splint that nothing could be felt. Liver dulness was present. There were persistent efforts at vomiting, but little was brought up except frothy mucus. The pulse was 128; the skin was cold. The patient was in the extremity of anguish. In answer to questions he could utter barely two or three words at each expiratory gasp. Clearly a catastrophe had occurred, and our tentative diagnosis was one of perforated gastric ulcer. I opened the abdomen at 9.50 P.M. (three hours and 50 minutes after perforation). On cutting through the peritoneum a few bubbles of odourless gas and froth escaped. A thin slightly turbid yellowish fluid welled up into the wound. The stomach was examined and found to be intact. A perforation was found equal to a No. 8 or No. 9 catheter in diameter on the anterior wall of the duodenum about one inch from the pylorus. From the opening a yellowish, thick, glairy, bile-stained fluid escaped. The opening was rapidly stitched up by a single continuous suture applied vertically from above downwards and then returning from below upwards. The stitch held quite readily. The abdomen was flushed out thoroughly. The right kidney pouch, the right iliac fossa, and the pelvis contained a turbid yellowish fluid. The left kidney pouch and the left iliac fossa were clean. A drainage tube was placed in the pelvis. A most curious sensation was experienced in handling the omentum and intestines, which, as I remarked at the time, suggested that the intestines had been oiled. The return of the omentum and some small intestine which escaped during the flushing was thereby rendered unusually difficult. During the operation the patient lay on a heated table, was swathed in wool and flannel bandages, and had one-tenth of a grain of strychnine administered hypodermically twice. His condition after the operation was satisfactory. One-twentieth of a grain of strychnine was given hypodermically every four hours for three days. No fluid was allowed by the mouth for 24 hours, sips of water and soda-water being then given. Rectal injections of saline solution (10 ounces) were given every six hours. The drainage-tube was removed in 36 hours. Both wounds healed well and on the nineteenth day the patient sat up. His recovery was quite uneventful.

The accompanying table (Table I.) shows all the cases of acute perforation which have been operated upon up to July, 1901.

In carrying out an operation for a perforated duodenal ulcer the utmost speed consistent with safety and thoroughness is desirable. The abdomen is opened through the right rectus muscle about half an inch or one inch from the median line. Odourless gas escapes as soon as the peritoneum is cut. The perforation, if on the anterior surface, is readily seen, and from the opening bubbles of froth, bile-stained mucus, or altered food will issue. If on the lateral surface the exact position of the ulcer may be discovered by compressing the stomach or duodenum so as to force some of their contents through the rupture. As in the stomach, two ulcers may be found to have perforated, as is recorded by Biggs. As soon as the ulcer is exposed the perforation should be closed by a single or double continuous Lembert suture of silk or fine Pagenstecher thread. The excision of the ulcer is unnecessary and is harmful in so far as it wastes moments which are precious. The rupture being securely closed the peritoneal cavity is cleansed. This should be done freely and methodically. A glass drainage-tube should be introduced into the pelvis by a separate incision above the pubes, and the flushing is then begun. The immediate neighbourhood of the duodenum is first flushed, then, in order, the space between the liver and diaphragm on both sides of the suspensory ligament, the interval between the liver and the transverse colon, the right kidney pouch, the right iliac fossa, the pelvis, the left kidney pouch, and left iliac fossa. The cleansing is best effected by using a long indiarubber tube with a funnel, the soft tubing being readily passed to any spot desired. Saline solution at a temperature (taken with the thermometer) of 105° F. is used. When the returning fluid from all areas is clear the wound may be closed. There is no need to empty by sponging the peritoneal recesses. The usual routine as to the administration of strychnine in large doses hypodermically, the use of a heated table, warm clothing, &c., should be rigidly observed. The value of large doses of strychnine in anticipating and preventing shock does not seem to be appreciated. In a recent case of double primary amputation on the right side at the hip-joint, and on the left in the middle of the thigh, I gave 45 minims of liquor strychninæ hypodermically in the three-quarters of an hour that the patient was on the operating table. The patient recovered, and neither he nor any other patient to whom I have administered Gargantuan doses

TABLE I.—OPERATIONS FOR ACUTE PERFORATING DUODENAL ULCER.

No. of case.	Recorder.	Sex.	Age (years).	History.	Condition found and nature of operation.	Result.	Remarks.	Reference.
1	Mackenzie (operator, Sidney Jones).	M.	35	Indefinite epigastric pain, one week; sudden acute pain; vomiting and collapse; alcoholic.	General peritonitis (cause doubtful). Operation at the end of the second day.	Died in a few hours.	Duodenal ulcer found at necropsy just beyond the pylorus.	THE LANCET, Dec. 1st, 1888, p. 1060.
2	Mackenzie (operator, John Croft).	M.	31	Acute attack resembling intestinal obstruction diagnosed as appendicitis and general peritonitis.	General peritonitis of doubtful origin. Operation on the third day.	Died in a few hours.	Duodenal ulcer found at necropsy immediately beyond the pylorus.	THE LANCET, Dec. 1st, 1888, p. 1060.
3	Boiffin.	M.	29	Sudden seizure; abdominal pain, vomiting, and distension; diagnosis of perforative peritonitis.	General peritonitis. Operation in 90 hours. A cavity containing two quarts of serous fluid was found beneath the liver.	Died on the same day.	—	Congrès Français de Chirurgie, 1892.
4	Lockwood.	M.	28	Sudden, violent pain while drinking tea; later fæcal vomiting and tympanites.	Peritonitis; gas and pus evacuated; drainage. Operation in 80 hours.	Died in seven hours.	Perforation of the duodenum found at the necropsy.	Transactions of the Medical Society of London, 1892.
5	Lockwood.	M.	41	Slight previous indigestion. While at work a sudden seizure with abdominal pain and vomiting.	Septic peritonitis; drainage.	Died in ten hours.	Perforation of the duodenum found post mortem.	Transactions of the Medical Society of London, 1892.
6	Pearce Gould.	F.	27	Sudden attack of pain in the right hypochondrium, soon becoming general; vomiting; tympanites; no loss of liver dulness.	General peritonitis; incision below the umbilicus allowed the escape of fluid; then incision above the umbilicus revealed a perforation. Operation in 24 hours; ulcer excised.	Died in six hours.	Suture firm, but general peritonitis.	Middlesex Hospital Reports, 1893.
7	Perry and Shaw (operator, W. H. A. Jacobson).	M.	21	Sudden attack of acute abdominal pain in the lower part; vomiting and collapse.	Large quantity of dark brown acid fluid with fæcal odour evacuated.	Died in four hours.	At necropsy a perforation was found in the first part of the duodenum on the anterior surface. A second ulcer was found immediately opposite.	Guy's Hospital Reports, 1893.
8	Lockwood (J. Langton's patient).	M.	56	Brought to hospital with abdomen tympanitic and the signs of acute intestinal obstruction.	Peritonitis; purulent and fæcal fluid evacuated.	Died in a few hours.	Ulcer of the duodenum was found at the necropsy; suture could have been easily performed.	THE LANCET, Oct. 27th, 1894, p. 968.
9	Lockwood.	M.	28	Sudden pain in the abdomen while ascending an omnibus; vomiting. Admitted to hospital on seventh day with intestinal obstruction. Coils of intestine were seen to be contracting.	Purulent peritonitis in the pelvis, irrigation, drainage. Operation in 150 hours.	Died in 54 hours.	Ulcer of the duodenum found post mortem, with local peritonitis and abscess. A second ulcer was found in the stomach.	THE LANCET, Oct. 27th, 1894, p. 968.
10	Lockwood.	M.	61	Long history of gastric ulcer; no hæmatemesis; sudden pain in the right hypochondrium; collapse.	Operation in four and a half hours. Perforation was found in the anterior wall of duodenum; this was sutured.	Died in six days.	A second ulcer was found on the posterior wall of the duodenum.	THE LANCET, Oct. 27th, 1894, p. 968.
11	Eve.	M.	28	Sudden abdominal pain while lifting; vomiting immediately; on third day this became fæcal.	Operation in 62 hours; sero-pus was evacuated. An ulcer as big as a florin was found one inch from the pylorus; edges pared; omental graft made.	Died in two hours.	No necropsy.	THE LANCET, Nov. 10th, 1894, p. 1092.
12	Dean.	F.	27	Epigastric pain for a fortnight; sudden abdominal pain; vomiting and collapse.	Operation in 30 hours. Incision was made below the umbilicus, then prolonged upwards; gas was seen issuing from near the duodenum. Ulcer was seven inches from the pylorus and was sutured.	Recovered.	Nothing given by the mouth for 17 days. After two months an attack of intestinal obstruction; operation on third day; death.	Transactions of the Medical Society of London, 1898.
13	Brissaud.	M.	35	Sudden abdominal pain and vomiting; tympanites; collapse.	Operation in 51 hours. Incision over the appendix gave issue to fæcal matter; general peritonitis; drainage.	Died in a few hours.	Perforation was found just beyond the pylorus.	Collin: Thèse de Paris, 1894.
14	Bryant.	M.	—	After a debauch a sudden attack of pain in the right side of the abdomen.	Operation in 53 hours, as for appendicitis; pus and milky fluid were evacuated; drainage.	Died.	A perforated duodenal ulcer was found at the necropsy. A sac around the cæcum contained milk and food.	Medical Record, 1895.

TABLE I.—OPERATIONS FOR ACUTE PERFORATING DUODENAL ULCER—(*Continued*).

No. of case.	Recorder.	Sex.	Age (years).	History.	Condition found and nature of operation.	Result.	Remarks.	Reference.
15	Sheild.	M.	20	Sudden severe pain while at the theatre. No vomiting until second day; tympany, pain, and tenderness over cæcum. An opinion was expressed that the case was one of appendicitis.	Operation in 60 hours. Odourless gas; thin pus and lymph in peritoneum. Lavage.	Died in 24 hours.	A perforation was found in the anterior wall of the first portion of the duodenum.	THE LANCET, May 11th, 1895, p. 1169.
16	Sheild.	M.	23	A sudden attack of pain and vomiting three years before. Present attack began with acute pain and vomiting; tympanites.	Operation in 120 hours. Odourless gas and thin pus escaped. The jejunum was incised; lavage; drainage.	Died in 22 hours.	Necropsy revealed a duodenal ulcer half an inch from the pylorus.	THE LANCET, May 11th, 1895, p. 1169.
17	Bolton.	M.	28	The patient was an alcoholic. Sudden abdominal pain and vomiting, followed by tympanites.	General peritonitis. Irrigation; drainage.	Died in three days.	Ulcer in third portion of the duodenum, with pancreas forming the base.	Medical Record, 1900, p. 495.
18	Bolton.	M.	35	The patient was an alcoholic. History of similar attack 13 years before. Abdominal pain and vomiting for a few days; tender abdomen.	Diagnosis of appendicitis. Incision over appendix revealed general peritonitis. Drainage.	Died in a few hours.	Ulcer in first portion; periduodenitis.	Medical Record, 1900, p. 495.
19	Festal.	M.	56	A long history of gastritis, diarrhœa, and melæna. An acute attack of pain four hours after food, vomiting, and collapse. Tumefaction on third day in iliac fossa.	Diagnosis of appendicitis. Operation in 66 hours. Incision over appendix; douche and drainage.	Died in nine hours.	Ulcer just below the pylorus occupying two-thirds of the circumference of the gut. Healed ulcer of the stomach.	Journal de Médecine de Bordeaux, 1896.
20	Hercsel.	M.	33	Sudden pain in the right hypochondrium; collapse.	Operation in 25 hours. Purulent fibrinous peritonitis. Perforation found and sutured.	Recovered.	Attack of bronchitis during convalescence.	Pagenstecher: Deutsche Zeitschrift für Chirurgie, 1899, p. 556.
21	Bolton.	M.	35	A hard drinker. Sudden severe abdominal pain without vomiting; diagnosis of appendicitis.	Operation in 30 hours; general peritonitis.	Died in 24 hours.	Necropsy showed a perforating ulcer in the duodenum one and a quarter inches from the pylorus, and a second ulcer lower down.	Medical Record, 1900.
22	Warren.	M.	52	An attack of acute epigastric pain six years previously; ill ever since. Acute attack of severe pain about pylorus, tympanites, and vomiting; appendicitis diagnosed.	Operation on fourth day. The intestines were distended and covered with lymph. Ulcer in duodenum was sutured.	Died in three days.	No necropsy.	Boston Medical and Surgical Journal, 1898.
23	Dunn.	M.	—	Sudden epigastric pain while at work followed by vomiting; tympanites and loss of liver dulness.	Operation in 30 hours. Perforation in the anterior wall of the first portion of the duodenum. Gas and yellowish fluid were evacuated. A second laparotomy was necessitated owing to return of symptoms; adhesions only found; mural abscess.	Recovered.	—	Brit. Med. Jour., vol. i., 1896.
24	Landerer and Glucksmann.	M.	50	10 or 15 years' pain, hæmatemesis, and melæna. Eight months before patient had had all the symptoms of perforation, but at the operation no ulcer was found; blood-stained fluid was seen to escape from near the duodenum. Admitted with peritonitis.	General septic peritonitis.	Died.	Ulcer of second part found at necropsy.	Mittheilungen aus dem Grenzgebiete der Medicin und Chirurgie, vol. i., 1896.
25	Banret and Lardennois.	M.	24	Acute epigastric pain at the end of a meal. Diagnosis lay between appendicitis and duodenal perforation.	Operation in 19 hours. A perforation on the anterior surface of the duodenum near the pylorus was sutured; peritonitis.	Died in 20 hours.	Suture tight.	Bulletin de la Société Anatomique de Paris, 1897.
26	Lardennois.	M.	26	Intense pain on the left side of the abdomen during exertion; vomiting was blood-stained and bilious; diagnosis, appendicitis.	Operation in 56 hours. Incision over appendix; peritonitis found; drainage.	Died in 30 hours.	A perforation was found in anterior wal near pylorus.	Bulletin de la Société Anatomique de Paris, 1897.

TABLE I.—OPERATIONS FOR ACUTE PERFORATING DUODENAL ULCER—(*Continued*).

No. of case.	Recorder.	Sex.	Age (years).	History.	Condition found and nature of operation.	Result.	Remarks.	Reference.
27	Soligoux.	M.	—	A sudden attack of pain and colic.	Perforation of the first portion of the duodenum. Suture.	Died in 12 hours.	—	Bulletin de la Société Anatomique de Paris, 1897.
28	Beausse.	M.	—	A policeman; sudden attack of pain while on duty. Diagnosis of biliary colic; 30 hours after the onset vomiting and distension; diagnosis of appendicitis or intestinal obstruction.	Operation in 48 hours. General peritonitis discovered.	Died in one hour.	Necropsy revealed a perforation just beyond the pylorus.	Journal de Médecine de Paris, 1897.
29	Lennander.	F.	25	History of gastric troubles. Gastric pain was followed by general tenderness and tympanites; diagnosis of appendicitis.	Operation in four days. Incision made over the appendix. General peritonitis.	Died in four days.	Necropsy revealed a perforation close to pylorus. A second ulcer was present.	Mittheilungen aus dem Grenzgebiete der Medicin und Chirurgie, 1898.
30	Lennander.	F.	34	Long history of gastric troubles; pain, vomiting, and rapid pulse.	Operation 15 hours after. A perforation thought to be in the stomach near the lesser curvature was sutured.	Died in 24 hours.	A perforation was found in the first portion of the duodenum. Three ulcers in the stomach.	Mittheilungen aus dem Grenzgebiete der Medicin und Chirurgie, 1898.
31	Lennander.	M.	37	Long history of gastric troubles; sudden attack of pain when sitting up in bed; vomiting; diagnosis of duodenal ulcer or appendicitis.	Operation 60 hours after. A perforation was found in the anterior superior portion of the duodenum near the pylorus.	Died in 26 hours.	Fibrous peritonitis; an abscess between the stomach and the colon.	Mittheilungen aus dem Grenzgebiete der Medicin und Chirurgie, 1898.
32	Schwartz (operator, Rochard).	M.	46	During exertion a sense of injury and abdominal pain; diagnosis of intestinal obstruction.	Operation in five days. General peritonitis, with pus and lymph. On the superior surface of the duodenum near the pylorus a large ulcer was sutured.	Died in two hours.	—	Bulletin et Mémoire de la Société de Chirurgie, 1898.
33	Schwartz (operator, Guinard).	F.	30	History of indigestion; sudden pain during breakfast; diagnosis of perforated gastric ulcer.	Operation after 28 hours. Incision above the umbilicus; escape of gas, bile, and pus. A perforation was found in the right side of the second portion of the duodenum. Opening sutured; drainage.	Died in 14 hours.	Necropsy showed a second ulcer lower down.	Bulletin et Mémoire de la Société de Chirurgie, 1898.
34	Schwartz (operator, Sieur).	M.	23	History of gastric ulcer; sudden attack after drinking coffee; distension, pain, and vomiting.	Operation after 48 hours. General peritonitis; perforation in posterior superior wall of first portion; sutures tore through. The ulcer was walled off by sutures in the omentum.	Died in 36 hours.	General peritonitis; no other lesion.	Bulletin et Mémoire de la Société de Chirurgie, 1898.
35	Wanach.	M.	22	Acute attack three hours after a meal, pain, tenderness, &c.; diagnosis of appendicitis.	Operation in 15 hours. Incision over the appendix; general peritonitis; appendix removed. A second incision showed a perforation in the anterior wall of the first portion; this was sutured.	Recovery after serious and prolonged illness.	Wound was packed with iodoform gauze, and did not heal completely for three months.	Archiv für Klinische Chirurgie, 1898.
36	Whipple.	M.	38	History of pain three hours after food; sudden acute attack of pain; collapse and distension.	Operation after 72 hours. A perforation was found in the anterior wall of the duodenum near the pylorus.	Died in eight hours.	Pus between the liver and diaphragm.	Brit. Med. Jour., vol. ii., 1898.
37	Routier.	M.	30	History of indigestion; sudden severe pain during exertion; abdomen painful, distended.	Operation after 27 hours. Pus in the pelvis and on the right side; general peritonitis.	Died in nine days from pneumonia.	A perforation in the duodenum was partly closed in by adhesions.	Bulletin et Mémoire de la Société de Chirurgie, 1899.
38	Taylor.	F.	17	Indefinite abdominal pains, looked upon as due to appendicitis; collapse.	Operation in 12 hours. Incision over appendix. Perforation was found in the anterior wall of the third portion. Purse-string suture, supported by others; drainage.	Recovery; suppuration along drainage tracks.	—	North Carolina Medical Journal, 1899.
39	Erdmann.	M.	30	Sudden pain in the abdomen, followed by shock and toxic symptoms; diagnosis of appendicitis.	Operation in 36 hours. A perforation was found in the first portion of the duodenum.	Died in a few hours.	—	Medical Record, 1899.
40	Erdmann.	M.	40	Seized with pain while at work; shock; toxic symptoms; collapse.	Operation in 20 hours. Perforation in the first portion of the duodenum	Died in a few hours.	—	Medical Record, 1899.

TABLE I.—OPERATIONS FOR ACUTE PERFORATING DUODENAL ULCER—(*Continued*).

No. of case.	Recorder.	Sex.	Age (years).	History.	Condition found and nature of operation.	Result.	Remarks.	Reference.
41	Brooks.	M.	29	The patient was an alcoholic. For three years he had had gastric trouble; after a debauch he had bad abdominal pain, vomiting, and distension; diagnosis of appendicitis and peritonitis.	Operation from one to two days after attack. The appendix was removed and one quart of fluid escaped.	Died in 30 hours.	Perforation was found in the first portion of the duodenum.	Medical Record, 1899.
42	Weir.	M.	30	History of gastric troubles; sudden epigastric pain, vomiting, and prostration; distension and tenderness.	Operation after four days. A perforation found in the anterior superior wall of the duodenum close to the pylorus was sutured.	Died in a few hours.	—	Medical Record, May 5th, 1900.
43	Johnson.	M.	27	The patient was an alcoholic; sudden severe pain in the upper abdomen; chill.	Operation in 10 hours. Bile-stained fluid escaped. A perforation found on anterior surface of descending portion was sutured; flushing.	Recovered.		Annals of Surgery, 1899, p. 684.
44	Elliott.	M.	—	No history.	Ulcer at the back of the duodenum was stitched with difficulty.	Died from hæmorrhage.	—	Boston Medical and Surgical Journal, 1900.
45	Elliott.	M.	—	No details.	Operation on fifth day. General peritoneal infection. Ulcer was sutured.	Died on third day.		Boston Medical and Surgical Journal, 1900.
46	Perkins and Wallace.	M.	52	Epigastric pain of three days' duration, suddenly increased; a diagnosis of perforated duodenal ulcer.	Operation in 10 hours. An opening was found at the junction of the first and second portions. Suture; drainage.	Recovered.	—	THE LANCET, Feb. 17th, 1900, p. 468.
47	Bolton.	M.	20	Seven months' history; sudden severe pain in the right side; tenderness over the appendix; diagnosis of appendicitis.	Operation in 20 hours. Incision over the appendix allowed escape of odourless gas and fluid.	Died in 24 hours.	Necropsy revealed a perforation just beyond the pylorus.	Medical Record, March, 1900.
48	Bolton.	M.	45	The patient was an alcoholic. Four years previously an attack of severe pain in right side; distension; tenderness; diagnosis of appendicitis.	Operation in 22 hours. Incision over the appendix; escape of turbid serum; flushing; drainage.	Died in seven days.	Necropsy revealed a perforation in the anterior wall just beyond the pylorus.	Medical Record, March, 1900.
49	Christy Wilson.	M.	48	Several years of indigestion; sudden seizure of pain while at work.	Operation after 28 hours. Immediate escape of bile-stained mucus. A perforation found about one inch from the pylorus. General peritonitis; two layers of sutures.	Recovered.	—	THE LANCET, June 15th, 1901, p. 1681.

In compiling this list I have disallowed certain cases which have been accepted by other writers. These are Bolton's first case (there is no post-mortem record); Lennander's third case (a case of chronic perforation with the formation of periduodenal abscesses); and Routier's case of chronic perforation with abscess. The total number, including my own two cases related above, is 51 with eight recoveries.

had any symptoms of poisoning. In my first case it was obvious that the duodenum at the point of ulceration was so narrowed by the suturing that a marked stricture of the bowel would inevitably result, if the patient survived. I therefore gave an alternative route from the stomach by performing gastro-jejunostomy. This procedure is one to which I desire especially to call attention, as it will doubtless prove, in some few cases, of the greatest service. In Case 34 in the table related by Schwartz (operated upon by Sieur) and in Festal's case, where the ulcer occupied two-thirds of the circumference, it would have been an advantage. If, as rarely happens, there is difficulty in effecting a complete suture, or if, as in Landerer and Glucksmann's case, the opening of the ulcer cannot be found, a new outlet from the stomach would give some measure of rest to the duodenum and thereby facilitate healing. Omental grafts or flaps may be used to secure the "walling-off" of the ulcer.

2. *When subacute or chronic perforation leads to periduodenal or subphrenic abscess.*—Periduodenal abscesses are opened through the abdominal wall in front, subphrenic through the anterior or lateral walls of the abdomen, or through a low intercostal space. If the perforation is discovered, as in the third case related by Lennander, it should be closed by suture, and a drainage tube should be passed down to the abscess cavity, and should be left in for two or more days. The following case has been under my care.

CASE 3.—The patient, a female, aged 29 years, was admitted into the Leeds Infirmary on Sept. 29th, 1900. She complained of having had several acute attacks of pain, accompanied by vomiting, during the last five years. The first attack occurred after her confinement, and lasted for five days. There was blood in the vomit on that occasion, and blood had been noticed irregularly since. The motions had never been observed. The attacks had appeared without apparent cause. There had always been a sense of discomfort after meals, appearing from one to four hours after food. The diet had not been a full or a generous one for the last two or three years, and the patient was said to have been "fanciful" in her selection of food. There had never been jaundice, and no alteration had been observed in the condition of the urine. On admission the patient seemed, and looked, to be quite well. She was kept in bed and given a light diet. On Oct. 4th she had an attack similar to those from which she had previously suffered. The temperature was 101° F. and the pulse was 100. Vomiting occurred at intervals for three days; there was no hæmatemesis. The right upper quadrant of the abdomen was exquisitely tender and the muscles

formed so rigid a defence that examination was impossible. Pain above and a little to the right of the umbilicus was severe. The patient looked ill and anxious. The motions were normal. After the attack had subsided the stomach was more carefully examined and found to be dilated, reaching three-quarters of an inch below the umbilicus. A diagnosis of pyloric ulcer with perigastritis was made. On Oct. 12th the abdomen was opened between the linea semilunaris and the middle line. Many adhesions were found around the pylorus, duodenum, and gall-bladder. On separating these an abscess cavity holding three ounces of pus was discovered. It lay between the liver and duodenum. The duodenal wall was thickened and indurated and there was an ulcer at the junction of the first and second portions which had perforated and caused a localised peri-duodenal abscess. The liver, gall-bladder, and bile-ducts were intact. A drainage-tube with a sterilised gauze wick was introduced. The patient did well and left the hospital, the wound being entirely healed on Nov. 5th.

3. *When pain and gastorrhagia or enterorrhagia are persistent and disabling.*—Case 4 in my list is an admirable example of this form. The treatment of such cases is by the performance of gastro-enterostomy. The amount of food passing over the ulcer is reduced considerably (the greater part going by the new opening), and the rest so secured permits the healing of the ulcer.

4. *When cicatricial contraction and induration or periduodenitis are present.*—In such cases the symptoms are those of dilated stomach and a diagnosis of pyloric narrowing will generally be made. Gastro-enterostomy will give complete relief. A case of ulcer, causing stenosis, in the fourth portion of the duodenum is related by Rewitzow. Gastro-enterostomy was performed. My experience extends to four cases, the notes of which are given in Table II.

Leeds.

TABLE II.—CASES OF CHRONIC DUODENAL ULCER.

No. of Case.	Date.	Sex.	Age (years).	Symptoms and description.	Condition found and nature of operation.	Result.	Remarks
1	January, 1900.	F.	41	At the age of 16 years the patient had had an illness, attended with the vomiting of blood, on one occasion in large quantity. She had had pain after food ever since, at times better, at times worse. The diet had been carefully and rigidly supervised. In June, 1899, pain began to be much more acute, and vomiting, which before had been inconstant, now became frequent. Large quantities (four pints) were vomited. On examination of the abdomen a large contracting stomach was seen. Nothing abnormal was felt over the pylorus.	Thickening at the pylorus, and along the first portion of the duodenum, with contraction and many adhesions. The adhesions were carefully broken down, and gastro-enterostomy was performed.	Recovered.	Quite restored to health; eats well and suffers no pain.
2	January, 1900.	M.	55	Dyspepsia for 10 years; periodic seizures of copious vomiting at intervals of from 24 hours to three weeks.	Enormous stomach; thickening at the pylorus and along the first portion of the duodenum; cicatricial contraction very marked; adhesion to liver. Gastro-enterostomy was performed on two occasions, first with Laplace's forceps and then with Murphy's button.	Recovered.	Seen in July, 1901; had gained two and a half stones and could eat perfectly well.
3	Feb. 16th, 1901.	F.	31	For some years there were pain after food and diarrhœa; pain came on about half-an-hour after food and lasted for three hours or more; hæmatemesis.	Three ulcers were found, two in the stomach near the lesser curvature, one in the first part of the duodenum with considerable induration. Posterior gastro-enterostomy.	Recovered.	Complete relief.
4	March 3rd, 1901.	M.	30	The patient was sent to me by Mr. G. Millhouse and Mr. G. P. Anning with a diagnosis of duodenal ulcer; symptoms had persisted for five or six years. There were pain in the epigastrium after meals and vomiting; had attacks of faintness and prostration, followed by melæna and anæmia.	An ulcer was found in the first part of the duodenum with many adhesions; small scar of gastric ulcer on the posterior surface of the stomach. Gastro-enterostomy.	Recovered.	Complete relief; on May 31st had gained 12 pounds.

EXPERIMENTAL HÆMOGLOBINURIA CAUSED BY A BACTERIAL TOXIN.

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(*Preliminary Communication.*)

IT is well known that the injection into the blood-stream of certain substances which have a solvent effect on the red blood corpuscles gives rise to the appearance of hæmoglobin in the urine. This has been described as the result of the injection of certain simple chemical bodies (e.g., distilled water, glycerine, &c.), and of the sera of other animals. Since the discovery of tetanolysin by Ehrlich a series of hæmolysins has been described as produced by various organisms—e.g., bacillus pyocyaneus,[1] staphylococcus aureus and albus,[2] bacillus diphtheriæ, micrococcus tetragonus, streptococcus pyogenes,[3] and bacillus typhosus,[4] &c. These organisms, however, are all pathogenic for animals, and their hæmolytic action, which in most cases is comparatively feeble, is masked by other more obvious pathogenic effects. A more suitable organism for the study of experimental hæmoglobinuria is found in the bacillus megatherium, which, when grown in suitable media, gives rise to the formation of products which are very powerfully hæmolytic for the corpuscles of certain animals without causing death or serious illness from other pathogenic effects.

The hæmolytic action of the bacillus was first observed in the course of some experiments with a sample of papain in powder. It was found that the powder contained a strongly hæmolytic bacillus which on isolation proved to be the bacillus megatherium. A culture of the same bacillus was obtained from hay infusion, and these two races, together with one of the bacillus megatherium (De Bary) obtained from Kral of Prague were used in the following experiments. These three, though showing slight cultural differences, appear to be all races of the same bacillus. Parallel experiments were done with the three races, which were grown in alkaline broth in Erlenmeyer flasks at 37° C., and the hæmolytic power of the cultures was tested daily on a 5 per cent. suspension of guinea-pigs' washed corpuscles in 0·75 per cent. saline.

Formation of the hæmolysin.—The formation of the hæmolysin, which is in the main extra-bacillary, begins

[1] Bulloch and Hunter: Centralblatt für Bakteriologie, 1900, Band xxviii., p. 865.
[2] Neisser and Wechsberg: Zeitschrift für Hygiene, 1901.
[3] Lubenau: Centralblatt für Bakteriologie, 1901, Band xxx., p. 356.
[4] E. Levy and Prosper Levy: Centralblatt für Bakteriologie, 1901, Band xxx., p. 405.

under these circumstances between the second and third days, the amount rapidly rising to a maximum on the sixth or seventh day; after this it slowly decreases. The temperature exercises an important action, and so far the best results have been obtained at from 35° to 37° C. Oxygen is essential, and though some growth takes place anaerobically there is no formation of hæmolysin, hence a much stronger lysin was obtained by growing the bacillus in shallow layers of broth in Erlenmeyer flasks than in test tubes.

A somewhat high degree of alkalinity of the medium appears to favour the production of the lysin, and the best results were obtained with ordinary peptone beef bouillon, which was made just alkaline to litmus, and then normal caustic soda was added in the proportion of seven cubic centimetres per litre. Parallel experiments were made by growing the same bacillus (1) in six flasks of broth made just alkaline to litmus; and (2) in six flasks of the same broth with the addition of seven cubic centimetres of normal caustic soda per litre. After nine days in the incubator the cultures were filtered through a Pasteur-Chamberland filter and tested on guinea-pigs' corpuscles, with the result that the filtrate in the first case hæmolysed six times its volume, and the more alkaline filtrate 40 times its volume of the suspension, showing that the formation of the lysin was approximately seven times as great in the highly alkaline broth.

Action of the lysin on the corpuscles of various animals.—The red blood corpuscles of different species show a very great difference in the extent to which they are affected by the lysin, those of the guinea-pig being found the most sensitive of the corpuscles tried, one cubic centimetre of the filtered culture completely hæmolysing about 50 cubic centimetres of a 5 per cent. suspension of these corpuscles in an hour at 37° C. The corpuscles of man and of the monkey are also highly sensitive. The corpuscles of the sheep, goat, pig, and bullock are moderately sensitive, those of the dog, rat, rabbit, fowl, and sparrow are very slightly affected, and those of the donkey and horse are practically unaffected.

Nature of the lysin.—Megatheriolysin resembles the toxins of diphtheria and tetanus in being mainly extra-bacillary, even young cultures filtered through a Pasteur-Chamberland filter being strongly hæmolytic. It is very unstable at ordinary temperatures, but much less so than tetanolysin according to Madsen's[5] description of the latter. At 0° C. it is comparatively stable. A filtered culture kept in the ice-safe for 14 days was found to be almost unaltered, but one kept at about 20° C. for three weeks had gone down to one-eighth of its original strength. Heating to 56° C. for 30 minutes completely destroys the hæmolytic action of filtered cultures. Heating for five minutes at 100° C. does not entirely destroy the action of unfiltered cultures but very nearly so.

Existence of an anti-body in normal serum.—The anti-hæmolytic action of normal serum towards a bacterial hæmolysin was first pointed out by Ehrlich[6] in the case of tetanolysin, and later by Kraus and Clairmont[7] and Neisser and Wechsberg[8] for other bacterial lysins. In the case of megatheriolysin various normal sera exercise a considerable anti-hæmolytic action, both towards the corresponding corpuscles and also towards those of other animals; thus normal human serum protects human corpuscles against the lysin; the sera of the sheep and pig are strongly anti-hæmolytic towards their own corpuscles; donkey's serum has a marked action in protecting the corpuscles of the guinea-pig against the lysin, and this anti-hæmolytic power is increased by heating the serum for half an hour at from 63° to 65° C. No change takes place on heating for the same time at 60° C. Thus in one experiment it was found that a tube containing two cubic centimetres of 5 per cent. suspension of guinea-pigs' corpuscles required 0·05 cubic centimetre of the filtered culture for complete hæmolysis. If, however, 0·2 cubic centimetre of normal donkey's serum was added to the suspension 0·50 cubic centimetre—i.e., ten times as much—of the filtered culture was necessary, and if the donkey's serum had been previously heated to 64° C. for half an hour 0·90 cubic centimetre was required, so that the anti-hæmolytic action of the serum had been almost doubled by heating. The same phenomenon is observed in the case of sheep's serum and also of horse's serum, though in the latter case it is not so marked.

It is not easy to see any explanation of this increase in the anti-hæmolytic action of normal sera on heating, and it is possible that it is merely a physical effect depending on an alteration of the osmotic conditions, as the temperature of heating is so near the coagulation-point that the sera are quite viscid.

Immunisation of animals.—The subcutaneous injection of filtered cultures of the bacillus in guinea-pigs gives rise to a large local swelling with subsequent necrosis, and after several injections the serum of the animal acquires powerful anti-hæmolytic properties; but the guinea-pig is not a convenient animal for the production of an anti-serum, both on account of its small size and the tendency to local necroses. These necroses do not occur in the goat and the injections appear to cause very slight inconvenience in this animal. Two goats were immunised with the filtered cultures, beginning with one cubic centimetre subcutaneously and gradually increasing the doses up to 100 cubic centimetres. 10 days after the last injection the animals were bled and the serum was tested. In both cases it was found to be very strongly anti-hæmolytic. In one case one cubic centimetre of the serum completely neutralised 17 cubic centimetres of a filtered culture of the bacillus, this amount of the particular culture being enough to cause the complete hæmolysis of 1700 cubic centimetres of a 5 per cent. suspension of guinea-pigs' corpuscles in three hours at 37° C. The animal from which this serum was obtained was immunised with cultures of the bacillus obtained from hay infusion, and its serum was found to neutralise the lysins formed by each of the three races of the bacillus used; thus confirming the view that these three bacilli—in spite of slight cultural differences—were all races of the bacillus megatherium. Having obtained a strongly anti-hæmolytic serum, the constitution of the hæmolysin was investigated by Ehrlich's method of partial neutralisation, and it was found that the results of these determinations when plotted yield "spectra" similar in character to those obtained in the case of diphtheria toxin, and more especially resembling those obtained by Madsen[9] for tetanolysin.

Action of the filtered cultures on animals.—In guinea-pigs, when given subcutaneously, even in doses as large as 20 cubic centimetres, the filtered cultures do not produce death, but give rise to a large swelling with subsequent necrosis. The substance giving rise to this necrosis is destroyed by heating at 60° C. for half an hour, but does not appear to be

Table showing Results of Intravenous Injection of Filtered Cultures of the Bacillus Megatherium in Guinea-pigs.

No. of guinea pig.	Dose of filtered culture injected intravenously.	Symptoms.	Result.
1	1 c.c. + 9 c.c. saline.	Five hours later, hæmoglobinuria. There were no red blood corpuscles in the urine.	Lived.
2	2 c.c. + 8 c.c. saline.	Five hours later, hæmoglobinuria. There were no red blood corpuscles in the urine.	Lived.
3	5 c.c. + 5 c.c. saline.	One and a half hours later, hæmoglobinuria. Crystals of hæmoglobin and a few blood corpuscles were found.	Lived.
4	8 c.c. + 2 c.c. saline.	Three hours later, hæmoglobinuria. Crystals of hæmoglobin and many blood corpuscles were present.	Lived.
5	10 c.c.	Two hours later, hæmoglobinuria; there were no blood corpuscles. Three and a half hours later, hæmoglobinuria; many blood corpuscles were present.	Died in 12 hours.
6	10 c.c.	Hæmoglobinuria, hæmaturia, and epistaxis.	Died in 10 hours.
7	10 c.c. + 0·5 c.c. anti-serum.*	No symptoms.	Lived.
8	10 c.c. + 5 c.c. anti-serum.*	No symptoms.	Lived.

* In this case the anti-serum was given subcutaneously and 24 hours before the intravenous injection of the filtered culture.
The animals used were all approximately 500 grammes in weight.

[5] Zeitschrift für Hygiene, 1899, Band xxxii., p. 214.
[6] Berliner Klinische Wochenschrift, 1898.
[7] Wiener Klinische Wochenschrift, 1900.
[8] Loc. cit.
[9] Zeitschrift für Hygiene, 1899, Band xxxii.

neutralised, at any rate completely, by the serum of immunised animals.

The action of the filtered cultures when given intravenously in guinea-pigs is seen from the appended table. The results depend naturally upon the strength of the culture, but with the lysin used in these experiments a dose of 10 cubic centimetres intravenously was usually fatal; with smaller doses—from one cubic centimetre to eight cubic centimetres—the animals survived. A few hours after the injection the urine passed was a dark reddish-brown, often of the colour of stout, and gave the oxyhæmoglobin spectrum. If the urine was passed shortly after the injection, most commonly no red blood corpuscles were present, but these generally appeared later, and with large doses were found in the urine passed quite early. The hæmoglobin appears to be excreted mostly in the form of oxyhæmoglobin.

When mixed with a small amount of the anti-serum intravenous injections even of large quantities of the lysin produce no hæmoglobinuria, and if the animals receive a subcutaneous injection of the anti-serum the day before the intravenous injection of the lysin no hæmoglobinuria results, showing that the hæmolysis is brought about by a specific lysin and not by a simple chemical or physical action. In this connexion it is interesting to note that in the rabbit—the corpuscles of which are only very slightly affected by the lysis *in vitro*—large intravenous injections of the lysin produce no hæmoglobinuria.

The fact that a widely distributed organism, which has hitherto been regarded as practically non-pathogenic, is capable of forming products bringing about in susceptible animals such profound blood-changes is of the greatest interest, and although this bacillus may have no causal relation to any pathological condition in man or the lower animals, still the results obtained are suggestive in connexion with the pathology of such diseases as blackwater fever, paroxysmal hæmoglobinuria, and pernicious anæmia.

Harrow.

MOVEABLE OR FLOATING KIDNEY A CAUSE OF ACUTE AND CHRONIC PAINFUL DYSPEPSIA,

WITH NOTES OF CASES.

BY ALEX. MACGREGOR, M.D. ABERD., M.R.C.P. LOND.,
PHYSICIAN TO THE NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

MOVEABLE or floating kidney is by no means rare, yet it is frequently overlooked or apparently not suspected. If in the treatment of cases of chronic painful indigestion a systematic examination of the abdomen be made it not infrequently will be found, especially in women, that the cause of the dyspepsia is not in the stomach itself, but that the interference with the functions of that organ is due to the wanderings of a dislocated kidney. Except in those cases where the dislocation interferes with the functions of the kidney itself no symptom points directly to the nephroptosis. The kidney is not readily thought of as being the cause of an acute attack of jaundice with sickness and severe pain in the epigastrium, yet it has been known to give rise to such symptoms, and the first of the cases hereafter described is an example. Malignant disease of the stomach, too, has been suspected and diagnosed in not a few instances, as in Case 2, where further observation and examination proved a dislocated kidney to be the cause of the grave symptoms. The pain in the region of the pylorus, increased by food, the sickness, emaciation, and the icteric tint of the skin make the diagnosis of malignant disease, and especially in a patient aged about 40 years, a very natural one. Dr. Herbert Bramwell of Cheltenham recently published a most interesting case which ended fatally.[1] A post-mortem examination in this case proved the correctness of the diagnosis and added a valuable contribution to our knowledge of the altered condition of parts which gives rise to the symptoms. In Allbutt's System of Medicine[2] this altered condition of parts is fully described. There it is stated that bands of peritoneum produced by the dislocated kidney have been found to cause dilatation of the stomach by mechanically obstructing the normal passage of the chyme. "Such bands may pass occasionally from the upper part of the duodenum, but they are more commonly attached to the middle or lower part of the descending portion in the position nearly opposite that at which the bile-duct enters. The drag of the peritoneum on the duodenum is probably the commonest cause of the temporary jaundice which often accompanies the gastric crisis and of the dilatation of the gall-bladder." In the light of this Case 1 is clear and so is Case 3, which is an exact parallel to the early stage of Dr. Bramwell's case, but fortunately in my patient a short rest in bed and the wearing of a suitable pad and bandage gave complete relief from the symptoms. In the majority of cases the prominent symptoms are indigestion, pain more or less constant, and almost always increased by food, flatulence, and constipation.

The frequency with which moveable kidney is met in women as compared with men is very striking and puts it beyond doubt that there must be a cause at work in women which rarely or never acts in the male. The cases which I have met with seem to me to prove that the most common and most likely cause is tight-lacing *plus* muscular effort, as, for example, in cycling. One patient whose symptoms suggested malignant disease of the stomach dated the onset of her illness from a 50-mile bicycle ride and another patient of excellent physique began to suffer from the characteristic symptoms immediately after a 12-mile ride over a hilly road against time. In the case of two other female patients falls in the hunting-field were given as the probable cause. One of those two cases is interesting from the fact that for years the patient suffered from indigestion and pain in the right ilio-lumbar region, and by several gynæcologists she had been treated for "something wrong with the ovary and womb," but without benefit. This patient's right kidney lay low down and forward in the lumbar region and could easily be pressed upwards almost to the gall-bladder. The symptoms in this case were always more severe just before, and usually during, the menstrual period. "The catamenial aggravation of the characteristic sensations has been pointed out by Becquet, Lancereaux, Sawyer, and Fourrier."[3] I was able to observe this in Case 1, where with the onset of a menstrual period the kidney became distinctly enlarged and there was a threatening of a return of the gastric crisis with jaundice which accompanied a previous period. In neurotic women the symptoms are often misleading and sensations are felt in parts far removed from the offending kidney. One nervous woman complained of pain in the stomach passing up through the chest to the throat accompanied by distressing "choking sensations and terrible feelings all over the body." Her organs seemed perfectly normal, but the right kidney was freely moveable. Another woman, neurotic and anæmic, complained of occasional loss of voice and choking sensations which she associated with pain in the stomach, and the latter symptom was always increased by food. At first the abdomen was not examined, but as no relief followed the usual medicinal treatment for dyspepsia an examination was made and both kidneys were found to be freely moveable. The thin flaccid abdominal walls made palpation easy, and the kidneys were easily grasped and could be moved over a wide area. An interesting case came under my care while writing these notes. The patient, an unmarried woman, aged 37 years, consulted me on Nov. 20th and gave me a long but clear and intelligent account of years of suffering from indigestion. Two years ago, owing to her inability to take food because of the pain and sickness which it caused, she became terribly emaciated and was sent to a home to undergo the Weir-Mitchell treatment. There she improved immensely, put on weight, and was afterwards able to take a sea voyage. During the voyage, however, the symptoms returned, but they were not so severe. She is now gradually getting back to the condition she was in before undergoing the Weir-Mitchell treatment. She "cannot touch beef or mutton and can take only very small quantities of the simplest food." She was told that she was neurotic (and she knows that she is), but she is "most anxious to be able to eat food like other people." Except for a slight cardiac peculiarity this patient's organs seem perfectly healthy, but the right kidney is dislocated and lies near the upper border of the iliac region and can be pressed up almost to the gall-bladder. Of course, it is impossible

[1] Brit. Med. Jour., Oct. 19th, 1901.
[2] Vol. iv., p. 348.
[3] Allbutt's System of Medicine, vol. iv., p. 343.

now to say that the dislocated kidney was the cause of the painful dyspepsia and the resulting emaciation for which she was treated two years ago, but I am more than inclined to think that that is the true explanation of the case. An equally interesting case is that of a young woman who suffered for years from dyspepsia, flatulence, constipation, and pain in the right side of the abdomen, always increased by food. In January, 1900, she was operated upon for appendicitis and was told that the "appendix was very bad." She consulted me 10 months after the operation and said that she still suffered much pain in the right ilio-lumbar region, that the pain was most severe from an hour to an hour and a half after a meal, and that there were obstinate constipation and distressing flatulence. Aperients and aids to digestion gave only slight and temporary relief and on this account when she consulted me again in January of this year I examined the abdomen and found the right kidney lying low down in the lumbar region.

Although nephroptosis is most frequently met with in thin women who have had children emaciation is not necessary for its production, nor is it uncommon in unmarried women. Several of my patients had more than an average amount of adipose tissue, and five recently under my care were unmarried.

I have only once met with the condition in a man. His right kidney was enlarged, floating, and, I believe, diseased. He gave a history of having been crushed against a wall by a horse. In less than two years I have seen 12 cases in women, but I shall add short notes of only a few of them.

CASE 1.—A married woman, aged 31 years, the mother of two children, was admitted to the North London Hospital for Consumption under my care on Sept. 23rd, 1901. On Oct. 18th, just before the onset of a menstrual period, she had an attack of acute pain in the right side of the abdomen. I saw her two days later and then the abdomen was somewhat distended, there was severe pain with tenderness in the epigastrium and to the right of the middle line. The pain was most acute at a point a little above and to the right of the umbilicus. The liver dulness was slightly increased and the rounded end of the distended gall-bladder was palpable, but deep palpation was impossible. On Oct. 28th the acute pain and tenderness were no longer felt and the jaundice was disappearing. Deep palpation was now possible and the right kidney, somewhat enlarged and freely moveable, was found lying well forward in the lumbar region. The patient stated that for six months she had "felt something move or fall in the right side when she turned from one side to the other in bed." At the beginning of the next period there was a return of the same symptoms, but they were much less severe. The kidney again seemed to enlarge somewhat and there was decided tenderness.

CASE 2.—A woman at about the middle period of life, married but having no children, was seen by me in consultation in July, 1900. For some time she had been suffering from pain after food, nausea, and loss of flesh, and there was an icteric tint in the skin—symptoms strongly suggestive of malignant disease of the stomach. Nothing abnormal was to be found in the stomach itself and all the other organs seemed to be perfectly healthy, but the right kidney was dislocated downwards and forwards. She attributed her illness to a trying 50-mile bicycle ride. No malignant disease of the stomach has since developed.

CASE 3.—A woman, aged 32 years, married and the mother of four children, came as an out-patient to the North London Hospital for Consumption on Oct. 8th, 1901. She was very depressed, weak, and emaciated, and there was an icteric tint in the skin. Her history was that she had suffered from painful dyspepsia for several years, but the symptoms were much worse since the birth of her last child 10 months ago, and for nearly two months before her visit to the hospital she had been unable to retain a single meal because of the pain which it caused. The emaciation and flaccid condition of the abdominal walls made palpation of the viscera easy. Nothing abnormal was detected in the stomach, but the right kidney was found to be dislocated; it could be easily grasped and moved over a wide area. No medicinal treatment was given, but she was kept in bed for a fortnight, and during that time there was no sickness, and little or no pain. At the end of the fortnight an L-shaped pad kept in place by a suitable bandage was applied and she was no longer confined to bed. There has been no sickness or pain since and the patient eats well and is rapidly putting on flesh.

CASE 4.—A married woman, aged 48 years, had suffered more or less for 10 years. She complained of pain in the epigastrium and right hypochondrium and sickness after food, and she stated that the vomiting frequently came on at night. The bowels were alternately relaxed or constipated. Her right kidney was floating.

CASE 5.—A woman, aged 39 years, unmarried, consulted me in November, 1900. She had for years suffered from indigestion, distressing flatulence, constipation, and severe attacks of pain in the neighbourhood of the cardiac end of the stomach. The pain was frequently accompanied by much retching. The usual remedies gave only slight and temporary relief. Her left kidney was moveable and could easily be grasped and rolled between the fingers in bimanual examination. A pad and bandage gave little or no relief, probably because she was more than fairly stout.

CASE 6.—A woman, aged 39 years, married, and having one child, consulted me in February, 1901. She was distinctly neurotic, stout, and of excellent physique. She complained of vertigo, indigestion, and sudden attacks of pain in the stomach and right lumbar region. The appetite was good, the tongue was clean, and the bowels were relaxed. All the organs seemed healthy. As in the other cases, the remedies gave no relief except as regards the vertigo. The pain was first noticed four months previously after cycling up some stiff hills. Pain was felt in the abdomen on turning in bed. Owing to the amount of adipose tissue in the abdominal walls palpation was not easy, but the right kidney was made out to be freely moveable. After wearing a pad and bandage the pain was never so severe, but there was still aching.

It is unnecessary to give further details of individual cases. Those which I have given show, I think, that the symptoms and sensations are so characteristic that when in apparently ordinary cases of dyspepsia medicinal treatment fails, moveable or floating kidney ought to be suspected and examined for.

Unfortunately, the treatment by pad and bandage is not always satisfactory, but in none of my cases have I found it necessary to recommend operation. Yet Dr. Bramwell's case shows that nothing short of operation can under certain circumstances save the life of the patient.

The frequency with which nephroptosis is met in women is, as I have already remarked, striking; and no less striking in my experience is the fact that the right kidney is much more frequently dislocated than the left. In my last 12 cases the right kidney was dislocated in eight, the left in three, and both were dislocated in one patient. The explanation seems to me to lie in the fact that in muscular effort and severe straining the right kidney gets nipped at its upper end between the muscles of the back behind and by the liver and diaphragm in front and above, and is so pressed out of its normal position.

As regards the method of examination, either for the right or the left kidney, I find it best to stand at the patient's right side. The fingers of the left hand are placed in the lumbar region behind and pressed forwards, while the right hand pressing backwards is moved upwards and downwards over the side of the abdomen in front. In this way a dislocated kidney is more or less (according to the condition of the abdominal walls) readily detected and often slips from between the fingers with a distinct jerk.

Queen-street, W.

CHRONIC EPISTAXIS (? VICARIOUS MENSTRUATION); CAUTERISATION OF THE NOSE, FOLLOWED BY GREAT GENERAL AND LOCAL IMPROVEMENT.

BY BERNARD E. MYERS, M.D. EDIN., L.R.C.P. LOND.

THE following case has, I think, certain points of interest.

A young woman, aged 23 years, came to see me in June, 1901, on account of anæmia. She looked very ill and had an extremely anxious expression, whilst her cheeks, lips, and conjunctivæ were markedly pale. The patient complained of being in a constant state of hebetude and breathless on the least exertion, of pain and palpitation in the præcordial region and swelling of the ankles in the morning, also of stomach troubles, &c. She had suffered occasionally from rheumatism. Her family history was as

follows. Her father had had rheumatic fever and suffered for many years from epistaxis. One young sister, aged nine years, had also suffered from epistaxis since she was four years old. When my patient was five years of age she first bled from her nose, and this bleeding continued on and off till August of this year. The bleeding started without any warning, and until she was 13 years old it often occurred from seven to nine times daily, and she lost, according to her statement, at least a teaspoonful each time. The bleeding tended to be worse in summer. There were very few days during which she did not bleed once at any rate. She said that she was always ailing and had a perpetual frontal headache and a shocking memory. When she was 13 years old she first menstruated and then saw nothing again for five years. During this time she became generally worse and was very depressed in spirits. At 18 years of age she felt at what she called her periods great pain in the pelvic region and had a white discharge, but lost no blood per vaginam. This condition always lasted for one day and came on every three or four months until recently. From the age of 13 years she had also suffered (besides the ordinary daily small losses) from larger losses from the nose about every four weeks, amounting to one-half or two-thirds of a pint during the two days on which it lasted. This larger loss always occurred when she had the pelvic pains mentioned above, so that probably one may look upon this periodic bleeding as vicarious menstruation, though the pelvic pains did not occur every month. After all these larger hæmorrhages she fainted and was practically moribund for some hours. At the age of 17 years she was treated in a hospital for hæmoptysis and hæmatemesis, but I understand from her account that the amount of blood lost from the lungs or the stomach was never excessive.

In June, 1901, when I first saw her, she was suffering severely from secondary anæmia. There were also old quiescent mischief of the right apex of the lung and gastric ulcer. The usual signs and symptoms of anæmia were rather excessively marked, and I noted that on very gently touching the right or left side of the septum nasi in the usual area with cotton-wool on a probe there was an immediate oozing of blood. I gave her five grains of Blaud's pill and $\frac{1}{10}$th of a grain each of arsenic and strychnine thrice daily after meals; also a solution for douching the nose and an astringent dusting powder for the same purpose. She became a little better and there was a longer time between the bleedings, occasionally two weeks; but now when the epistaxis did start it was worse than ever, and on several occasions I had to put plugs of lint soaked in tincture of hamamelis into each nostril. Her appearance after these attacks was very ghastly and vision completely failed her for half an hour afterwards.

Early in August, after having exerted herself a little more than usual in attending on a sick friend, she suffered from the worst hæmorrhage that she had ever experienced, and for two days I was extremely anxious about her, and so I determined to treat both sides of the nose with the galvano-cautery. There was a certain element of danger in doing this on account of the possibility of bringing on hæmoptysis or hæmatemesis again; still, it was quite worth chancing, as I was rather afraid of the possible effects of another severe bleeding suddenly coming on.

Since cauterisation was performed her improvement has been very great indeed, and though it is 18 weeks since it was done she has not had epistaxis once (in the ordinary way she would have had over 50 attacks in this period), whilst her complexion has a healthy rosy tint and her lips and conjunctivæ are for the first time of normal colour. She eats well, sleeps well, and can do her daily duties without fatigue—a condition quite new to her. The mucous membrane of her nose, which was formerly turgid with blood, has now almost the normal hue. She has had no trouble with her lungs, but a slight hæmatemesis occurred three weeks after cauterisation. Her heart beats more vigorously than hitherto. Since the epistaxis has stopped she has menstruated four times, at intervals of four weeks. Her periods last for three days, the pelvic pain is much less than formerly, and for the first time since she was 13 years old she has lost blood per vaginam at her menstrual periods. The amount of blood lost is increasing each period, though it is still only four ounces or so for the whole menstruation. Perhaps it is too soon yet to judge whether the present satisfactory state of things will last, but it has had a fair test, and at present I have seen no bad results whatever, and I would be inclined to cauterise again in a similar case to this one.

West Hampstead, N.W.

A CASE ILLUSTRATING THE RELIEF OF SEVERE HEADACHE BY CORRECTION OF REFRACTION ERROR,

WITH REMARKS ALSO ON THE EFFECT OF CYCLING IN SOME CASES.

BY SIMEON SNELL, F.R.C.S. EDIN.,

OPHTHALMIC SURGEON, ROYAL INFIRMARY, SHEFFIELD, AND PROFESSOR OF OPHTHALMOLOGY, UNIVERSITY COLLEGE, SHEFFIELD.

ON Oct. 17th, 1901, a man, aged 32 years, consulted me in consequence of long-continued and severe headaches. He gave the following account of himself. He had been a missionary in the East. The headaches commenced about February, 1899. He had had considerable stress of work at that time and he felt generally run down. The headaches began on the left side, to which also they were chiefly confined. They commenced sometimes about the eye, and at other times about the teeth. At first there was a sort of hot feeling which, after a time, gave place to more acute pain, apparently like neuralgia. If pain was not present there was a constant numb feeling all along the left side and the top of the head reaching to the occipital region. He described the feeling, which was constantly with him, as if one side of the head was boiling hot or in flames, and it took all the energy out of him. He consulted a medical man who tried his sight and declared that it was above normal. He designated the complaint "hemicrania" and put on the certificate "cause undiscovered." At this time, also, as it was suggested that his teeth were responsible for the headaches, two were extracted from the left upper jaw. As a result of the examination by the medical man just referred to he was invalided to another part of the country for six months, but during that period he was able to do some amount of work. The change and comparative rest were beneficial. He resumed regular work in the autumn of 1899, and continued it until the beginning of the present year (1901) when headaches of the same character as at the beginning of 1899 returned. He was treated by another medical man who regarded the headaches as rheumatic, but without avail. He was then sent back to England in February last, landing in this country in the middle of April. On his arrival he was brought before the medical board and ordered six months' rest. At the expiration of that time he presented himself before the board for re-examination. The headaches still remained, though somewhat modified in severity. The principal medical officer could not say what the cause was, and therefore advised him to consult an oculist. He then came to me.

At the time of his visit I found that he was still suffering considerably from headache, though apparently not so badly as before. The numb feeling was constant and there were exacerbations of more acute pain. He thought that exertion rendered the headache worse, but he was unable to use his eyes with comfort and he himself considered that they had a good deal to do with his suffering. On examination I found vision in each eye was $\frac{6}{9}$ and that spherical + glasses rendered it worse. Both eyes were placed under the action of homatropine and cocaine and then in each eye vision = $\frac{6}{6}$, or with + 5D. cyl. $\frac{6}{6}$, axis horizontal. The muscle balance appeared to be normal. He was accordingly ordered these cylinders for general use. A week later he returned to me and reported himself as being greatly relieved, better, indeed, than he had been for a very considerable time. Whilst wearing the glasses the numb feeling in the head had disappeared, but it came back again if he left them off. He mentioned, however, an interesting fact that two days previously, after a bicycle ride, the pain in the head had returned and he was anxious to know whether cycling would be likely to be injurious. He had cycled a good deal when in the East, and he thought that it tended to aggravate the pains in his head. I explained to him the way in which I thought that it might do this. He was, I ascertained, in the habit of leaning forward and, therefore, on looking straight in front of him he would necessarily be using and straining the elevator muscles. This would cause discomfort just in the same

way that "Academy" or "sightseers'" headache is occasioned by looking at pictures hung above the line or by the more prolonged use of the elevators nystagmus in miners is produced. On calling on me later he expressed himself as so considerably relieved that he was anxious to return to work and therefore desired my permission to accept a curacy in the south of England. He was able to read with much greater comfort than had been the case for a considerable time. He informed me also that he was satisfied as to the correctness of what I had told him about the strain caused to the elevator muscles in cycling, because, as a test, he had placed and kept his eyes in the position I had indicated and it had soon occasioned similar discomfort. I saw the patient again on Nov. 22nd. He expressed himself as better and more fit for full work than he had been at any time since he began his labours in the East. He was able to read with comfort for long periods, and felt confident of being able to fulfil his clerical duties which he was to enter upon the next day.

Instances of headache occasioned by errors of refraction are very frequent and are met with daily in one's practice. The relation between ocular conditions and headache has become well recognised by the profession, and the number of cases coming before one's notice in which the causal relation between the two has in the first instance been suggested by the family medical practitioner are always on the increase. There would, therefore, be nothing in an ordinary case worthy of bringing under notice. I merely mention this instance because the headache was severe and long-continued and the relief occasioned by correcting the ocular defect was speedy and well-marked. It may be stated that the error of refraction met with in these cases is often of a low degree; especially is this so with regard to astigmatism. In the present instance the astigmatism was only half a dioptre, but there was the additional factor that the axis of astigmatism was contrary to the rule—that is to say, the axis of the + cylinder was required horizontal instead of vertical. In the case related the muscle balance was normal, but in all such instances it is desirable to examine the muscles, for it has often happened in my experience that they are at fault, and the use of prisms, alone or in combination with the correcting glasses, has been of distinct benefit.

Another point worthy of remark is the relation of cycling to headache or discomfort in the eyes. If the cyclist sits upright and does not lean forward on the handle-bars he will look straight in front of him and the direction of his gaze will be rather below than above the horizontal line. My observations in miners, compositors, platelayers, and many other occupations show that prolonged use of the elevators tends to produce nystagmus or ocular discomfort. Especially in miners, nystagmus is the outcome of this continued strain upon the elevators. The same is met with in other trades, but there are many instances in which only discomfort and aching of the eyes are complained of. A like remark applies to visitors to the Academy or other picture galleries in whom in consequence of the eyes being directed above the horizontal line discomfort is occasioned, and thereby many sightseers suffer from what has been described as "Academy" or "sightseers'" headache. I am satisfied that this is, in many instances, the true explanation of this form of headache. Turn the eyes below the horizontal line and even prolonged effort does not produce discomfort; on the other hand, turn the gaze above the horizontal line and discomfort results. I have observed instances of this in cyclists who have been in the habit of stooping and leaning on the handle-bars. It follows, as they have to look forward, that their eyes must be directed above the horizontal line. This remark, of course, is much less true in many cases than in others. In the one I have related a return of the headache resulted from a rather long cycle ride. As already stated, on questioning the patient, it was found that he was in the habit of stooping and leaning on the handle-bars and looking in the direction I have suggested as occasioning the weariness of the elevators and consequent headache. The accuracy of this observation he was able to endorse from tests which he made himself. I mention this particularly because I think that it is an explanation of the headache or eyeache sometimes complained of by cyclists, and the cause once recognised admits of easy remedy.

Sheffield.

AT a Chapter-General of the Order of the Hospital of St. John of Jerusalem held on Nov. 26th Mr. J. M. Carvell, M.R.C.S. Eng., L.S.A., was selected for enrolment as an Honorary Associate.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTES ON SOME SKIN LESIONS.

BY EDWARD C. B. IBOTSON, L.S.A.

Epidemic acne varioliformis.—A healthy man, aged 20 years, consulted me on account of an extensive eruption which had come out on his skin in two days' time. There was no history of taking any drug and he had no syphilis past or present. He amused himself with photography and took his own portrait for me, showing, though imperfectly, the skin lesion. He informed me that he had noticed an exactly similar eruption to his own on three or four other young men in the works at which he was employed. The lesion commenced as a flat red papule and the size of the papules varied from one-third to a quarter of an inch in diameter. On the papule a minute vesicle next appeared containing clear fluid. I regret not having obtained some of this fluid for bacteriological examination. When the vesicle burst it left a sharply defined small pit behind. As regards the distribution of the lesions they were most copious on the forehead, next on the cheeks, next on the chest, and finally there were a very few papules on the arms and legs. I did not notice vesicles on the arms or legs. The man felt somewhat languid but was otherwise in good health. I prescribed five-minim doses of Fowler's solution after food, one-tenth of a grain of calcium sulphide in a pill thrice daily, and locally Hutchinson's paint—namely, equal parts of liquor carbonis detergens, rectified spirit, and liquor plumbi subacetatis. Under this treatment there has been marked and steady improvement.

Dr. Sabouraud has recently found the lesions of acne varioliformis to contain the golden staphylococcus (staphylococcus pyogenes aureus). Is it not possible that, this organism being somehow present on a towel, these young men may have inoculated themselves with the germ by using the same towel to wipe their faces and so rubbed in the germs and thus produced this small epidemic? Had he been a hospital patient I should undoubtedly have restricted myself to local treatment only, as I think it doubtful whether the internal treatment should be regarded as the beneficial agent in his case. Morris praises iron and cod-liver oil and says that the duration of these cases may be long. It is noteworthy that this case made rapid improvement; also that the age is unusual, as most of these cases have occurred after 40 years of age. Theoretically one would suppose that the pyococci are allowed to develop owing to defective phagocytosis, and hence also the boils and carbuncles that occur in association with albuminuria and diabetes. Iron undoubtedly will improve the percentages of hæmoglobin and red cells, but I do not know whether the leucocytes have ever been seen to increase in number with iron. Arsenic is given frequently in leucocythæmia, presumably to diminish the number of leucocytes, and therefore theoretically one would have imagined arsenic to be a friend to pyococcic infection, whereas it has proved beneficial in this case, and, moreover, it has been shown by Mr. Hutchinson to be a specific in pemphigus.

Non-specific and specific pemphigus neonatorum.—I have lately seen a bullous eruption in a newly-born infant which appeared to me to be secondary to a pyococcus infection of the conjunctiva. The mother had a yellow discharge throughout pregnancy and a creamy discharge appeared on the child's conjunctiva on the second day after delivery. The pus contained staphylococci. There was no history of gonorrhœa in the father. Bullæ appeared on the chin first, about as large as a threepenny-piece—viz., one-third of an inch in diameter. When these bullæ ruptured a clear yellowish serum escaped and a flat greyish-yellow circular crust remained. The eruption invaded the cheeks, scalp, neck, chest, and hands. One bulla on the chest reached the size of a halfpenny. The legs and feet were not affected. There were none of the signs of syphilis. The case appeared to be one of those described by Crocker as non-syphilitic pemphigus neonatorum. It yielded to the following treatment. For the conjunctivæ a wash of perchloride of mercury (1 in 1000); to the skin a dusting

powder of zinc oleate, boric acid, starch, and thymol, and the inunction of weak ammonio-chloride of mercury ointment.

I have had under observation a true syphilitic pemphigus neonatorum—a female child, 20 months old, of foreign parents. The bullæ were numerous, deep-seated, and dark in colour. There was a distinct history of syphilis at an earlier age. The smell was very strong. The interesting point is that the palms and soles were not affected in the least. Treated with mercury and chalk, one grain three times a day, this child has completely recovered and is fat and strong.

Ashchurch-grove, W.

CASE OF SPONTANEOUS RUPTURE OF THE BOWEL.

BY T. CARWARDINE, M.S. LOND., F.R.C.S. ENG.

RUPTURE of the intestine from its own muscular action must be a rare event. It occurred, however, in a case of rectal cancer which was under my care in the Bristol Royal Infirmary.

The patient, a man, aged 50 years, was sent to me from Bridgwater in September, 1901, complaining of difficulty and straining in the passage of his motions, which were chiefly of a soft or liquid character. He looked well, and his abdomen was soft and lax. He was found to have an annular carcinomatous stricture of the rectum some two inches from the anus, the lumen of which would just admit the forefinger. It was intended to perform colostomy, and the patient was kept in bed for some days. Preparatory to the operation he was given a colocynth pill and he went to the closet twice the same night. The next morning he was observed to be rather cold and seemed in a good deal of pain. At 11.30 A.M. he "got a fearful spasm," as the nurse expressed it. The abdomen was hard and distended. He was cold, livid, and collapsed, and remained so till the early afternoon, when he died in great pain. At the necropsy the peritoneum was found to be full of soft, liquid fæces; and in the sigmoid flexure, some six inches from the stricture, there was a rent about one and a half inches long, having a longitudinal direction and situated opposite to the mesenteric attachment. Its edges were clean-cut and there was no sign of ulceration or inflammation in the bowel around. The intestine had evidently ruptured as a result of muscular action, although there was no complete obstruction. The appearances were strikingly different from those seen when an ulcer, resulting from obstruction, perforates.

Bristol.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF ACUTE PARALYSIS CLOSELY RESEMBLING LANDRY'S PARALYSIS (SO-CALLED); RECOVERY.

(Under the care of Dr. ISAMBARD OWEN.)

IT can hardly be doubted that under the name of Landry's paralysis many cases have been reported which are not of the same essential nature as those originally described by Landry. Although we know nothing definite of the etiology of these cases, yet there can be but little doubt that they are toxic in origin. In the following case there is one point mentioned in the account of the condition on admission to hospital which may perhaps suggest the origin of the disease. It is stated that the gums were swollen and inflamed and that pus exuded from their margins. It has recently been suggested that several obscure diseases are due to the absorption of toxins from suppuration in the mouth, and it is at least possible that in this case also the suppuration around the teeth may have had something to do with the origin of the disease. For the notes of the case we are indebted to Dr. T. R. C. Whipham, medical registrar.

On Jan. 19th, 1901, a bricklayer, age 24 years, was admitted into St. George's Hospital under the care of Dr. Isambard Owen with a history of having been seized about eight weeks previously with pain in the head and sickness one morning after breakfast. No further symptoms developed till nine days before admission when he noticed "tingling pains" and loss of strength in the arms. On the following day he experienced pains in the calves of the legs on going up and down stairs. On Jan. 12th he vomited soon after drinking a glass of beer and gave up work owing to increasing weakness and difficulty in walking, the latter symptom being due to loss of power in the knees and not to any alteration in the gait. Prior to the onset of his illness the patient had been employed in building a tall chimney in which for the purpose of obtaining light several oil lamps were kept constantly burning, and from these very offensive fumes emanated. Subsequently to relinquishing work the general weakness became more marked, and on the 16th he was unable to walk, though he could maintain an erect position without support. At this time he was suffering from very severe headache in the frontal and occipital regions, especially at night and in the early morning, and he stated that everything which he ate tasted like mutton fat, that his mouth was "stiff" and swallowing difficult, and that water used for the purpose of washing caused a sensation of "pins and needles" down his back. He was taken to the hospital in a cab on the 19th, being then unable to stand. He had had no shooting pains, loss of sensation, or impairment of vision, and he denied having taken any drugs just previously to the onset of his symptoms. The amount of alcohol which he had consumed had been strictly moderate, being limited usually to one pint of beer a day, which was of no particular kind. No trace of arsenic was found in the urine, and nothing in the history of the patient suggested poisoning by that metal. Syphilis was denied, and there were no signs or history pointing to that disease. The bowels had acted regularly and his appetite was fair. Both parents died from cancer; otherwise the family history was good and the patient himself had had no previous illness of any importance.

The patient was a fair-complexioned, well-built man. There was no particular tenderness in the head. The teeth were in a very carious state and the gums were swollen and inflamed and exuding from their margins pus which yielded a short streptococcus on cultivation. The tongue could not be protruded far and was dirty and pushed slightly to the left side. the fauces were congested, and a copious secretion of very viscid mucus was continually being ejected from the mouth, but did not dribble away. There was slight, though distinct, paralysis of the left side of the face. In the upper extremities there was slight general wasting of the muscles from the hands to the deltoid and scapular regions, with considerable loss of power, especially in the right. When on his back the patient was unable to move either arm as a whole from off the bed. The legs when extended were almost powerless, though on passive flexion of the thighs the legs could be flexed and extended at the knee with some little force. The muscles were flabby, but were not markedly wasted. The muscles of the trunk were weak, the patient being unable to sit up in bed unless the legs were allowed to hang over the edge. There was no reaction of degeneration. The spinal column showed no abnormality and all the joints moved freely. The eyes and ocular muscles were normal in every respect, and there were no ophthalmoscopic changes. There was no impairment in any of the special senses beyond a slight "thickness" in the speech due to the facial paralysis and an oily taste with the food. Sensation was perfect everywhere to tactile, painful, and thermal impressions. The reflexes, both superficial and deep, were absent with the exception of the upper abdominal which was present to a slight degree. There were no cutaneous trophic changes and the sphincters were normal. The viscera were healthy and the urine was free from albumin. The temperature was normal.

For the first few days after admission the condition of the patient became worse. There was a further loss of power in the left arm with a "tightness" across the chest and aching in the hands. The secretion of saliva was increased and coryza appeared in the eyes. He vomited on several occasions and experienced slight difficulty in swallowing his food though there was no regurgitation through the nose. The facial paralysis became more marked and severe

shooting pains radiated from the occiput to the forehead. Tingling pains occurred in the legs when they were washed, and some paralysis of the diaphragm was observed. At the end of a week the patient was brighter in himself though the power in the lower extremities was still further decreased, and after a transient improvement in the face the paralysis again became more marked and movement in the right facial muscles was impaired. The headache and pain, however, had disappeared and the secretion of saliva was less. There was no coryza, bad taste in the mouth, or difficulty in swallowing. By the 30th the power in all four extremities was even more diminished. There were tenderness in the calves and some loss of tactile sensation, while the occipital pains had returned with sensations of giddiness. Sharp aching pains were also experienced in the legs and shoulders, which were relieved by the position of the limbs being changed. The paralysis of the diaphragm, however, had disappeared. He vomited on this day for the last time during his illness. Slight epistaxis followed, and on Feb. 2nd the patient complained of stiffness in the mouth and jaws, causing the food to accumulate in the cheeks; there was, however, no difficulty in swallowing or perversion of taste. The "stiffness" was apparently due to the facial paralysis, which by this time was marked on the right side, though scarcely so pronounced as on the left. From this point the patient began to improve, and on the following day there was more power in the arms and legs, the headache and giddiness were less pronounced, and there was no salivation to speak of. The facial paralysis on the right side soon disappeared and the extremities gradually regained their strength, the power in the arms returning before that in the legs. The return of power in the arms was preceded by a sensation of tingling and cramp similar, the patient stated, to the feelings experienced with the loss of strength at the beginning of his illness. The trunk muscles became more powerful, and on the 6th the sensation was noted as "perfect." The upper abdominal reflex, however, was the only one present. Some little pain at this time was caused by weakness of the left peronei muscles and dropping of the left foot, a sign which was present to a slighter degree in the other leg. No reaction of degeneration was observed. By the 26th the arms had regained their full strength, though numbness was complained of in the hands, and the foot-drop had disappeared. The abdominal, scrotal, and plantar reflexes were all present, but the knee-jerks were in abeyance. On March 1st the patient could walk without a stick and the face was practically devoid of any paralysis. The electrical reactions were tested for the last time on the 9th when it was found that although the arm muscles reacted well to faradism those in the legs scarcely did so at all. The reaction of degeneration, however, was not present with the exception of a small tract in the left peroneal region, in which K.C.C. was less than A.C.C. The patient went for a time to the convalescent hospital at Wimbledon, and was finally discharged on the 20th strong and well, though even by that time there was not the slightest sign of either knee-jerk. The bladder and rectum throughout were normal and there was no rise of temperature. No active medicinal treatment was employed during the first month, but subsequently the patient was ordered massage and a bitter tonic containing strychnine.

Remarks by Dr. WHIPHAM.—"Landry's paralysis" is a rare disease, even if it be considered to include the various conditions that have been described under that head. It is advisable, however, to restrict the term "Landry's paralysis" to cases resembling that described by Landry himself, in which the chief symptoms consisted of initial subjective sensory changes followed by a rapid centripetal paralysis involving successively the legs, arms, and trunk, with perhaps a late affection of the muscles of the face, the cause being either of central origin, inasmuch as the electrical reactions were unaltered (no recognisable change, however, was found in the spinal cord after death) or due to some toxic condition of the blood.

The case detailed above conforms in many respects with Landry's classical description. The premonitory symptoms, if such they may be called, were slight and consisted merely of an attack of headache and vomiting some two months prior to the acute onset, which began with a tingling sensation and loss of power, in the arms, however, at first, and not in the lower extremities. On this point the patient was very definite, asserting that he first experienced difficulty in raising his arms from one rung to another while ascending a ladder. The legs, it may be noted, were distinctly involved by the following day, and at the time of admission the muscles of the trunk and face were also implicated. With regard to the subjective sensations a curious point was observed during the stage of recovery, sensations being then experienced in the arms similar to those which occurred with the loss of power. Objective sensation, which was carefully tested, was found to be unimpaired with the exception of a transient diminution in acuteness 20 days after the onset of the symptoms and some numbness in the hands during convalescence. As in about half the cases of typical Landry's paralysis the muscles supplied by the cranial motor nerves were implicated. With regard to the nutrition of the muscles the wasting was at the most but slight, though the muscles themselves were flabby. The electrical reactions were tested on five separate occasions, and it was not until a few days before the patient left for the convalescent hospital that loss of reaction to the interrupted current was observed. This occurred in both legs, though only in one small tract was there any true reaction of degeneration.

The etiology of the case is obscure. There was no history of alcoholic excess or of exposure, and no acute illness preceded its development; moreover, there was no reason to suppose that the patient had suffered from syphilis. One is therefore constrained to believe that it must have been due to some indefinite toxic condition arising perhaps from the unsavoury surroundings in which he had worked, as the patient himself all along imagined. To Dr. Isambard Owen my thanks are due for permission to publish the notes of this interesting case.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Modern Methods of Vaccination and their Scientific Basis.

A MEETING of this society was held on Dec. 10th, Dr. SYDNEY RINGER, F.R.S., in the absence of the President, being in the chair.

Dr. S. MONCKTON COPEMAN read a paper on Modern Methods of Vaccination and their Scientific Basis. In dealing with the subject he began by giving a short history of the introduction of vaccination and of the various Acts of Parliament which had come into force. He said that the occurrence of certain fatal cases of erysipelas following on vaccination in the practice of the public vaccinator at Norwich had, when he was quite a boy, made a great impression on him and the remembrance of the unfortunate event caused him to turn his attention to the possibility of avoiding the accidental transference of erysipelas and other diseases from one child to another by the substitution of serum preparations of animal lymph for the arm-to-arm method. There was a common belief that calf lymph produced "worse arms" than the method of arm-to-arm vaccination, and culture plates inoculated from calf lymph showed a greater number of colonies of micro-organisms than when inoculated from lymph taken from the human arm. This, he had no doubt, was due to the greater difficulty in cleansing the skin of the calf as compared with that of a child. The opacity which occurred in stored lymph was due to the increase in the number of bacteria in the tube. He had been able to obtain inhibition of the growth of these organisms by mixing the lymph with 50 per cent. of pure glycerine in water, and further, he had been able to show by a series of plate cultivations that the number of bacteria steadily diminished, so that at the end of one month after the admixture no organisms were present on the culture medium. Not only did this method kill off all the usual contamination bacteria but it would also destroy those of tubercle and erysipelas, when these were added experimentally, in comparatively large quantities. Dr. Copeman then dealt with the preparation of the lymph under the following heads. 1. *Vaccination of the calf.*—Suitable animals had to be selected, from three to six months old; they were placed in the quarantine stable for a week, their general health was ascertained, and they were weighed and their temperatures were noted. The lower part of the abdomen was shaved, and after cleansing was inoculated with glycerinated calf lymph by numerous parallel linear incisions. 2. *Collection*

of the vaccine material.—This was taken 120 hours after inoculation. The vesicles and their contents were collected with a sterilised Volkmann's spoon, and in this way the vesicular pulp was removed without admixture with blood. The animal was then slaughtered and was examined by a veterinary surgeon and the lymph was not used until the animal in question had been certified to have been healthy. 3. *Glycerination of the vaccine material.*—The lymph pulp was triturated and mixed with six times its weight of a sterilised mixture of 50 per cent. pure glycerine in distilled water. 4. *Storage of emulsion.*—The emulsion was then placed in small test-tubes and put into an ice-chest, and week by week agar-agar plates were established from the emulsion with the result that the number of colonies was shown to diminish successively. At the end of a month the plate rarely showed any colonies. 5. *Use of the lymph at the animal vaccine establishment prior to distribution.*—Samples of the lymph were taken and children were vaccinated. The results of these vaccinations were recorded, and from the number and size of the vesicles an estimate was made as to the potency of the lymph. 6. *Transference of the glycerinated lymph to capillary tubes for distribution.*—The lymph was transferred to capillary tubes and sealed and stored in ice-chests ready for distribution. 7. *Recording the results of vaccinations by public vaccinators.*—Each public vaccinator had to record the number of the tube used, the number of persons vaccinated, the number of scarifications made, and the number of vesicles obtained. The success attending the use of this lymph in the first year showed a case success of 93 per cent. and an insertion success of 83 per cent., and at the present time it was no unusual experience for returns to show complete case and insertion successes. Dr. Copeman then dealt with the regulation as to the mode of vaccination, with the question as to what constituted efficient vaccination, and with the after-treatment of the arm. He said that he had removed the glycerine from the lymph in order that the lymph might dry more rapidly on the arm, but he did not think that the results were worth the trouble involved in the preparation of such lymph. Deaths directly attributed to vaccination in the year 1893 amounted to 59, rather more than one a week, whilst in the year 1899 only 25 deaths were attributed to vaccination. He then dealt with the relation of vaccinia to small-pox and stated his belief that the former was an attenuated form of the latter, and in support of this statement he quoted the following experiments. He said that it was well known that a calf could seldom be inoculated directly from a case of even confluent small-pox in the human subject, but that if in the first place a monkey were inoculated with lymph from such a case good vesicles developed. If lymph was taken from these vesicles and a calf was inoculated poor vesicles were produced; if a second calf was then inoculated from the first a good crop of vesicles was produced; and then if a child was inoculated with lymph from this calf a typical vaccinia was produced. A second series of experiments in which the lymph from a case of confluent small-pox was passed through two monkeys in succession and then through two calves before the child was vaccinated gave similar results to the experiments above described. Such evidence seemed strongly to support the view that vaccinia was an attenuated form of small-pox. Numerous lantern slides were shown in illustration of the paper.

Dr. LEONARD C. T. DOBSON said that in his experience small calves with thin skin and white hair gave as a rule the best results when vaccinated, but that the results varied very greatly according to the condition of the animal. In some cases when good vesicles had formed in four days, by the fifth they would have dried up and only scabs would remain. Lymph might become inert from various causes; if the glycerine were acid it would rapidly make the lymph inert; heat and light had the same result. There was unfortunately no test for the efficiency of the lymph except its result on the calf and on the child and lymph which produced good results in the calf might be inert in the human subject. He stated that it was possible to produce good vesiculation in the same individual with lymph obtained from different sources, and he said that he himself after having been successfully vaccinated with lymph from the Government laboratories shortly afterwards accidentally inoculated his finger with lymph from another source and a good vesicle resulted.

The discussion was adjourned.

MEDICAL SOCIETY OF LONDON.

The Physical Disabilities for Tropical Life.—The Remote Effects of Tropical Life on Europeans.

A MEETING of this society was held on Dec. 8th, Dr. W. H. ALLCHIN, the President, being in the chair.

The PRESIDENT referred to the loss which the society had sustained in the death of Sir William Mac Cormac, a former president of the society.

Surgeon-Lieutenant-Colonel ALEXANDER CROMBIE read a paper on the Measure of Physical Fitness for Life in the Tropics. He said that the facility with which the human organism was capable of adapting itself to altered conditions made it possible to maintain a high average of health and efficiency in the tropics for a time, and apart from the diseases which were prevalent in, but not essential to, these regions, such as malaria, dysentery, and cholera, climate, as climate, took a small place among the causes of increased sickness and mortality in hot climates. In the course of time, however, a perceptible deterioration of health began to show itself, especially in those who from defects of constitution or health were least fitted to adapt themselves to the altered physiological processes imposed by high temperatures. These modifications of physiological processes consisted in a lessened demand for thermogenesis and an increased demand for thermolysis, in order that the mean temperature of the body might be kept within physiological limits. The evidences of diminished thermogenesis were to be found in the exhalation of carbonic acid and watery vapour from the lungs and in the secretion of waste nitrogenous products by the kidneys. The amount of carbonic acid given off by the lungs was reduced in the tropics by about 20 per cent., that of watery vapour by about 5 per cent. The demand made upon the respiratory function was therefore lowered, the respirations were fewer in number, and the vascularity of the lungs was reduced by about 12 fluid ounces of blood, while their capacity was increased by about 30 cubic inches. In very high temperatures of 95° F. and over the respiratory exchange was, on the other hand, increased. The effect on health of the lessened demand on the respiratory function in ordinary tropical temperatures was a diminution in the frequency and severity of inflammatory diseases of the chest. People with weak lungs, therefore, did well in such climates. This applied, however, only to equable and moist climates, such as those of islands and near the sea. In inland regions where the extremes of temperature were great inflammatory diseases of the lungs, and especially pneumonia, were frequent and fatal, especially in those who were debilitated by disease. The evidences of lessened metabolism in hot climates found in the urine were low specific gravity, and the smaller quantity of urea, &c., excreted. Kidney disease was less frequent in Europeans, and albuminuria advanced more slowly to secondary changes and uræmia. Albuminuria was, however, very common in natives over 40 years of age. As a result of the lowered metabolism of the nitrogenous elements of tissue and food, gout in its acute manifestations was rare, even when the hereditary tendency was strong, but in old residents who lived well the irregular forms of gout were common, especially those of eczema, acid dyspepsia, and congestive derangements of the liver, and high blood tension and headaches in younger men. Acute rheumatism was seldom met with among Europeans in the tropics. In India it occurred chiefly in the dry hot central regions, on the wet west coast, and especially in the hills. A tendency to rheumatic fever was therefore no bar to residence in tropical climates. Acute, or rather subacute, rheumatic fever was not infrequent among well-to-do natives in Lower Bengal, with all the usual cardiac and other complications. Osteo-arthritis was not of frequent occurrence, but did badly in the tropics. Thermolysis, the reduction of body temperature, was accomplished chiefly by increased activity of the sweat-glands and vascularity of the skin. In dry hot climates this increased perspiration evaporated as fast as it was formed; but not so in humid provinces like that of Lower Bengal. There the skin might feel cold and clammy while the temperature of the body was 104° F. The constant presence of moisture on the skin was favourable to the growth of all vegetable parasites, and its vascularity favoured all inflammatory and exudative skin diseases. Very few Europeans were for long free in such a climate from tinea circinata and prickly heat,

and from the ubiquitous presence of the streptococcus, boils were of great frequency, as were also carbuncles which in diabetics often attained enormous dimensions. Dry scaly eruptions, such as psoriasis, were, on the other hand, of great rarity, and might with advantage be sent to a moist tropical climate for treatment. When the temperature of the air rose to or above 95° F., and especially if it was at the same time saturated with moisture, great distress was felt by Europeans and natives alike. It was difficult to understand how the temperature of the body was maintained within physiological limits when the temperature of the atmosphere was many degrees above that of the body, so that there could be no radiation from the surface, and when the humidity was so great as to reduce evaporation to a minimum, and at the same time the unavoidable thermogenesis of tissue and food changes, which were alone capable of raising the temperature 10° or 15°, were necessarily going on. Obesity caused great suffering in ordinary conditions of tropical life on account of the disproportion between the possibilities of thermogenesis in a bulky man and the surface available for the cooling processes. Neurotics, whether the nerve weakness was hereditary or acquired, were also bad subjects for tropical life. There were two departments of Government service in India in which these results were particularly manifested—the Civil Service proper and the Forest Department. It must be clear that to enable a man to re-invigorate an exhausted nervous system, as well as to repair the dilapidations caused by disease, it was above all things necessary that he should have a faultless digestion and stable powers of absorbing nourishment. The man subject to dyspepsia, to "bilious" attacks, and to diarrhœa, either during the hot summer months or from chills at other seasons, should stay at home. If he was at the same time neurotic, as was often the case, he would, if he went to the tropics, sooner or later furnish an example of the very unmanageable association of neurasthenia with dilated stomach which was so frequent in emaciated Anglo-Indians. The great tendency to dilatation of the stomach in the tropics was probably to some extent determined by the habit of imbibing large quantities of fluid during meals. A perfect digestion was also necessary as a protection against microbic diseases which affected the intestinal canal, such as dysentery and cholera, and possibly typhoid fever. The question of phthisis was an important one. It might be laid down for practical guidance that, no matter how strong the hereditary predisposition, a man who landed in such a climate as that of Lower Bengal free from tubercle was little likely to become infected while residing there, but once the disease had started its progress was remarkably rapid. Syphilis could be treated just as successfully in the tropics as at home in its earlier manifestations, but the same debilitating causes which make the treatment of phthisis difficult in the tropics were all opposed to the satisfactory treatment of its later stages. Diabetes, like albuminuria, ran a slower and milder course in the tropics than in temperate climates, especially in patients after 40 years of age. This was especially true of natives, with whom it was very common in the classes corresponding to those who suffered from gout in this country—i.e., in those who lived well, who were of sedentary occupation, and who were engaged in mental labour. Diabetes was the gout of the native judicial department. After all the early attempts to cure diabetes by diet and drugs had failed, a patient who was the subject of a moderate seizure would, if he went to the tropics, probably do just as well as, if not better than, he would if he stayed at home.

Dr. JOHN ANDERSON, C.I.E., read a paper on the Remote Effects of Tropical Life on Europeans. He said that many diseases which had been attributed to heat were in reality due to defects in personal hygiene and habits of life, or an over-stimulating diet, or an excess of alcohol and tobacco. Moderation in such matters was necessary for the maintenance of health in warm climates. The physiological changes induced by heat were the raising of the body temperature nearly half a degree, the slowing of respiration, a slowing of the pulse-rate, and diminished secretion of urine. The nervous system was depressed, digestion was slowed, and nutrition was less active. The diseases that owed their origin directly to malaria were met with long after the sufferer had returned to Europe. These deferred manifestations of malaria were often of a very irregular type and symptoms frequently yielded surprisingly to treatment which, if regarded only from a clinical standpoint and without a knowledge of the antecedents and medical history of the patients, might lead to an unduly grave diagnosis and cause needless anxiety. Of malarial neuralgias the most common were facial and hemicranial, brow ague, and intermittent headache, but sciatica, intercostal and abdominal pain, burning of the feet, and acute tenderness of the skin were often attributed to the same cause. Locomotor ataxy was seldom or never met with in the natives of India. Europeans, however, did so suffer, and since natives suffered from syphilis their practical immunity from locomotor ataxy suggested the doubt as to the correctness of the theory of the necessarily syphilitic origin of the disease. Serious conditions of the nervous system sometimes resulted from sunstroke; epilepsy, blindness, deafness, and dementia might occur. Affections of the motor nerves were less common. Apyrexial cachexia occurred and was marked by a progressive anæmia so severe that it closely resembled pernicious anæmia. The blood in these cases was diminished in quantity, the corpuscles, both red and white, were reduced in number, and the red were altered in colour, shape, and size, and there was a tendency to infarction, and not infrequently the gums were swollen and spongy. Abscess of the liver might show no evidence of its existence for years after the patient had returned to Europe. The difficulty of diagnosis in such cases was great, but the facts that the fever did not yield to quinine, that the plasmodium malariæ could not be found, and that there was a history of dysentery would be greatly in favour of hepatic abscess. Dr. Anderson referred to statistics as to the relative frequency of dysentery in European and native troops, 25 per 1000 being the rate in the former and 38 per 1000 in the latter, but in the same year the mortality from abscess of the liver was 32 times greater in Europeans than in native soldiers. An attack of dysentery was the most common precursor of liver abscess. He suggested that the difference was accounted for by the difference in the diet and habits of the respective races—as the natives did not eat meat or take alcohol. Sprue, or psilosis, was another disease which would long remain latent, and his experience was that these cases tolerated fruit well and that it formed an important addition to the milk food.

Dr. G. THIN said that it was of considerable importance in selecting individuals fit for tropical life to take into consideration the relation of the body-weight to the height, for his experience had been that the tall, under-weighted man was extremely likely to break down within the first 10 years of tropical life. He referred to the so-called after-effects of malaria and said that in many of these cases the plasmodium could not be found in the blood, that quinine did them no good, and that the only mode of treatment was rest in bed. Many of these cases which he had observed had eventually been proved not to have been of malarious origin.

Mr. J. CANTLIE referred to the relation of dysentery to hepatic abscess. Many of these abscesses were situated above the liver and he believed that they were often due to chill.

Dr. LAURIE said that many diseases which were attributed to climate were in reality due to errors in diet and he gave striking instances of this fact.

Dr. ANDREW DUNCAN referred to tuberculous disease in India and said that much depended on the locality. He had seen some cases do very well. In the Punjab, however, patients did badly, and in Gourkas who became infected the disease ran a most rapid course. He was of the opinion that a man who had once been invalided home for dysentery should not again return to India, and he was of the same opinion with regard to patients who had suffered from sunstroke. Persons of a nervous temperament should not go to India, and he considered that no soldier should be sent out until he was 25 years of age, remarking in support of this statement that during the march from Cabul to Candahar it was the recently arrived drafts of young men who had to fall out.

OBSTETRICAL SOCIETY OF LONDON.

Pregnancy of Four and a Half Months complicated by Epithelioma of the Cervix Uteri.—Pernicious Vomiting in Pregnancy.—Exhibition of Cases and Specimens.

A MEETING of this society was held on Dec. 4th, Dr. PETER HORROCKS, the President, being in the chair.

Dr. R. SANDERSON read a paper on a case of Pregnancy of Four and a Half Months complicated by Epithelioma of the

Cervix Uteri in which he had performed vagino-abdominal hysterectomy. Finding that the epithelioma was operable he removed the uterus and the growth by a combined vaginal and abdominal operation without previous induction of labour. The specimen and microscopic section of the growth were described and shown. He discussed the ethics and the treatment adopted under the following heads—(1) that where pregnancy and operable cancer of the cervix co-exist the life of the mother is alone to be considered; (2) that anterior to the fourth month of pregnancy vaginal hysterectomy is the orthodox treatment; (3) that after this period the alternative methods are (*a*) induction of labour followed by vaginal hysterectomy, and (*b*) hysterectomy, without induction of labour, by a combined vaginal and abdominal operation; and (4) that the latter of these alternatives, having regard to the improved statistics of abdominal hysterectomy, was in this case to be preferred.—Dr. W. W. H. TATE congratulated Dr. Sanderson on the successful result of his operation. He thought, however, that it was not necessary to have subjected the patient to the risk of a vagino-abdominal hysterectomy, and that the operation might have been more safely performed by the vaginal route alone. By making a longitudinal incision through the cervix and emptying the uterus of its contents it was possible to remove a uterus in which the pregnancy had advanced to the sixth month, if not later. Six years ago he (Dr. Tate) had treated a case of carcinoma of the cervix complicating a five months' pregnancy by the older method of inducing abortion and removing the uterus per vaginam 10 days later. Although the case was a favourable one for operation, the disease rapidly recurred.—Dr. J. H. DAUBER thought that time alone would decide whether the operation that had just been described afforded the patient a longer period of immunity from recurrence than the more usual method of procedure in these cases. That operation was the best which came nearest to effecting a real and permanent cure. He would like to know in three or five years' time if Dr. Sanderson's patient were alive and well, and he hoped that the society might be informed on that point. He himself had had a similar case under his care in 1898. He emptied the uterus and then waited for its involution, when he performed vaginal hysterectomy. Recurrence occurred within 18 months. This he considered unsatisfactory. The fœtus was destroyed and the mother did not long survive.—Dr. W. S. A. GRIFFITH agreed that vaginal hysterectomy after emptying the uterus was at present the best operation, the mortality being very low and the prolongation of life in many cases being considerable.—Dr. AMAND J. M. ROUTH said that vaginal hysterectomy could be performed at a much later date than that of a four months' gestation. By incising the anterior uterine wall along its centre as it was pulled down into the vagina the contents could be readily evacuated. The uterus promptly retracted and its size became so materially diminished that its removal became easy by the vaginal route. The alternative procedure to this operation in such a case would be somewhat as follows: firstly, a temporary removal of the cervical growth by scissors, gouge, or cautery, treating the stump with pepsin dressings to digest any sloughs; secondly, induction of abortion; and thirdly, in a week's time, to allow some involution to take place, vaginal hysterectomy. In early pregnancies he much preferred the former plan. In every case the uterus should be emptied before removal per vaginam.—Dr. HERBERT R. SPENCER agreed that it was not necessary to resort to abdominal section in this case. In a recent paper by E. Altherthum, who had himself performed vaginal hysterectomy for cancer at the sixth month, a list of 18 cases was given in which the uterus was thus removed, all the patients recovering. Nevertheless there was a tendency at the present time to operate by the abdomen in these cases, not for the simple removal of the uterus as in Dr. Sanderson's case, but in order to remove the broad ligament and glands as widely as possible. This operation received support from the researches made in Professor Rosthorn's clinic which showed that 57·5 per cent. of cases of cancer of the cervix in the operable stage already had the glands infected, and therefore a vaginal operation would be useless from the point of view of cure. If these researches were confirmed they would considerably alter their views upon the treatment of cancer of the uterus. As far as he knew the results had not been good, but a sufficient time had not elapsed to allow them to judge of the chances of "cure." At the present time he (Dr. Spencer) believed that in the case under discussion a better operation would have been high amputation with the cautery followed by removal of the ovum. He thought also that high amputation after induction of abortion was a good operation, if the growth was not in a septic condition. He had not had a case of early pregnancy complicated by cancer in an operable stage; but in three cases of cancer complicating labour he had amputated the cervix and part of the lower segment after delivery and the patients were now well after eight and a half, six, and five years. He did not know of such good results after any kind of hysterectomy for cancer complicating pregnancy.—The PRESIDENT agreed that it was nearly always justifiable to consider the mother alone when both she and the child could not be saved, though he thought that it might so happen that it would be justifiable to save the child. He could not help agreeing with those who advocated the vaginal route, and even where the uterus was too large, as when the child was viable, he advocated the induction of labour and then waiting until involution had proceeded far enough to allow of vaginal extirpation. Moreover, in the earlier states of pregnancy he considered it bad practice to try to drag an unemptied pregnant uterus through the opening made in the vaginal roof; it was far better to remove the contents, thereby reducing the bulk of the uterus to a minimum before extracting it. The removal of the cancerous mass first, leaving the uterus to be dealt with afterwards, had not been considered by Dr. Sanderson, but he agreed with Dr. Routh that it might in some cases be practised with advantage. In operating he used numerous short forceps, grasping very little tissue and removing them in 30 hours. In this way by the help of formalin douches offensive discharges following upon the operation were reduced to a minimum.—Dr. SANDERSON, in reply, recognised the justice of the criticisms in the debate on this case. He, however, found it difficult to understand why a combined hysterectomy should be a more severe operation than a vaginal or an abdominal one. Whether the cervix was circumcised from below or from above, as in Doyen's operation of abdominal hysterectomy could make little or no difference in the severity of the operation; and he believed that in the future, as abdominal methods improved, the abdominal or combined route would be preferred to the vaginal.

A short paper by Dr. J. P. MAXWELL of Changpoo, China, was then read, on two fatal cases of Pernicious Vomiting in Pregnancy.—This was discussed by the PRESIDENT.

A report of the sub-committee upon the President's specimen of Deciduoma Malignum was then received.

The following cases and specimens were shown:—

Dr. CUTHBERT H. J. LOCKYER: Two Septicæmic Uteri, with bacteriological investigations.

Dr. GRIFFITH: A Person of Uncertain Sex.

Dr. C. HUBERT ROBERTS: A case of Male Pseudo-Hermaphroditism.

Dr. AMAND ROUTH: Tubal Gestation where Rupture occurred during the Process of Tubal Abortion; Operation; Recovery.

Mr. H. S. STANNUS (introduced by Dr. TATE): A case of Orbital Tumour in a Hydrocephalic Fœtus with Hydramnios.

The specimens were discussed by the PRESIDENT, Dr. G. F. BLACKER, Mr. A. C. BUTLER-SMYTHE, Dr. C. J. CULLINGWORTH, Dr. F. J. MCCANN, Dr. G. H. DRUMMOND ROBINSON, and Mr. J. H. TARGETT.

LIVERPOOL MEDICAL INSTITUTION.

Exhibition of Cases.—A Series of Various Foreign Bodies.

THE fourth meeting of the session of this society was held on Dec. 5th, Mr. EDGAR A. BROWNE, the President, being in the chair.

Mr. ROBERT JONES showed two cases of Congenital Elevation of the Scapula and stated that the condition was first described by Sprengel in 1890 and was known as "Sprengel's deformity." It consisted of an elevation of the scapula above the level of its fellow, accompanied by rotation, approximating the lower angle to the middle line, with limitation of scapular and humeral motion and sometimes with a slight curvature of the spine. The etiology of the affection was doubtful, but the probability was in favour of constrained fœtal position. The first case was that of a boy, aged five years. The deformity was noticed when he was

vaccinated at the age of three months. The child was weird-looking, and he walked with a stoop and carried his head slightly bent to the left side. The left shoulder was raised two inches above the right. The distance from the inferior angle of the scapula to the spinous process of the vertebra was one and a half inches, on the right side it was two and a half inches. The left superior angle was three-quarters of an inch from the spine, the right being two inches. The scapula was therefore rotated. The length of the posterior border of the left scapula was four inches and that of the right five inches. From the left acromion to the episternal notch measured three and three-quarter inches; from the right four inches. The arms were of equal length. The dorsal spine was slightly curved, the convexity pointing backwards. There was a marked limitation in the movement of the scapula. Rotation of the arm was normal and abduction and adduction were limited. The trapezius muscle was contracted and tight. No exostosis could be felt and there was no articulation with rib or spinous process. The second case was that of a girl, aged seven years. The left scapula was displaced upwards, its lower angle touching the fifth rib, whereas the right touched the seventh rib. The movements of the shoulder were limited, so that the arm only came up to a right angle without movement of the scapula; she could not place the hand on the back of the neck. The right scapula, as shown by the radiogram, was normal in site and structure. The left or displaced bone had the axillary border shorter and more curved than that on the opposite side. The posterior border consisted of an upper portion, with which the extraneous portion of bone articulated, and a lower portion which was nearly straight. At the junction of these two portions there was a distinct projecting angle. The abnormal portion of bone was triangular, its outer border articulating with the upper portion of the posterior border of the scapula and its inner angle with a spinous process of the cervical vertebra. The extraneous portion of bone was removed in order to increase the range of scapular movement and the operation proved successful. Examined three years later the patient had improved much and she stood with shoulders square. There was a projection of the upper and inner angle of the scapula and this still interfered with the movement of placing the hand behind the back of the neck. The deformity was noticed a month after birth.

Mr. JONES also showed a case of Congenital Dislocation of the Shoulder and remarked on the literature, stating that cases described might be grouped into those due to faulty development and those due to injury during birth. The patient, aged nine years, showed the head of the humerus displaced backwards under the acromion and rotated inwards, so that the rounded portion was felt posteriorly. On pressing in front the inner margin of the glenoid cavity was felt. The condyles of the humerus pointed antero-posteriorly as the arm fell by the side. Measurements: the length of the posterior border of the left scapula, five inches; of the right, four and a half inches; from the angle of the scapula to the left acromion, six inches; to the right, five and a half inches; the posterior border of the left scapula, five and a quarter inches; of the right, four and a half inches; the arm from the apex of the right acromion to the external condyle, seven and three-quarter inches; and from the left acromion, nine inches. There was an elevation of the scapula and on fixing it the humerus could be slightly abducted, but not adducted. The range of scapular movement was increased, so that in spite of humeral fixation the boy could place his hand both behind his head and behind his back. A radiogram showed the glenoid to be thickened, not due to exostosis, but to the new socket formed on its posterior aspect. The head of the humerus was smaller than its fellow and the shaft was attenuated. Mr. Jones classed the case amongst the co-natal traumatic displacements, and as to treatment he trusted to stretching exercises.

Dr. W. B. WARRINGTON brought forward two cases. The first was a case of Acute Pneumonia characterised by long duration and an intermittent type of pyrexia, the crisis not occurring until the nineteenth day. This condition suggested that the case might be acute phthisis beginning with acute pneumonia. The symptoms were profuse sweating, progressive emaciation, and hæmorrhage. The subsequent course of the disease showed that a migrating pneumonia, possibly due to influenza, had to be dealt with. The second case was one of Acquired Hydrocephalus in a man, aged 35 years. The patient for eight months showed signs of cerebral tumour—viz., marked optic neuritis with headache and some vomiting, tremors in the tongue, slight exophthalmos of one eye, and weakness in the legs. His mental faculties became markedly impaired and he gradually passed into a comatose condition. At the necropsy dilatation of the lateral ventricles was the only gross lesion found; the microscope showed inflammatory thickening of the ependyma of the fourth ventricle. The nature and diagnosis of such cases were briefly discussed.—Dr. T. R. GLYNN briefly remarked upon the second case and related a case similar to it in which there were marked optic neuritis, headache, reeling gait, staggers, &c., a diagnosis of cerebellar tumour being made. The patient was trephined over the cerebellum. No tumour was found, but some cerebro-spinal fluid escaped after opening the ventricle and the patient recovered. Such cases explained those instances of recovery from apparent cerebral tumour.—Mr. DAMER HARRISSON related a similar case of relief of symptoms after opening the lateral ventricle.

Mr. RUSHTON PARKER read a note on a Series of Fourteen Foreign Bodies, various in nature and locality, and remarked that some foreign bodies were mere curiosities more or less amusing; others, while extraordinary, were curious from the little harm they did; while others, commonplace in themselves, might be the cause of danger and even of tragedy. The cases were with one exception from his own practice. 1. A wooden splinter over two and a half inches long and from a quarter to half an inch in width and thickness, embedded in the pterygo-maxillary region of a man, where it was broken off a bundle of swinging boards that struck him in the right lower eyelid. The object was thought to be loose bone and was withdrawn after a few weeks, early in 1878. 2. A piece of sailor's knife blade, two and a quarter inches long and three-quarters of an inch wide, broken off in the left pterygo-maxillary region of a man who was stabbed in New York. The object was removed 14 days later at the Liverpool Northern Hospital by Mr. Chauncey Puzey in 1879. 3. A gun-breech and a screw-bolt, forced by the bursting of a fowling-piece into the middle of the owner's face and lodging five years in the nose, which were removed through an incision under the upper lip on Dec. 20th, 1883. The objects weighed three and a half ounces and measured three inches by one and a half inches by one inch. 4. A piece of parasol rib, three inches long, broken off in a woman's fore-arm and removed after 12 days. 5 and 6. These were cases in which a bullet was displayed by radiography and removed from subcutaneous regions of the leg and hand respectively in boys. 7. Radiograms of a small bullet which was flattened against the lower end of the radius in a young man. When seen two days after the accident the wound was healed and the bullet was left alone. Five years later no inconvenience had been caused and the bullet was radiographed again. 8. Radiogram of a leaden pellet from an air-gun between the metacarpal bones. The substance was removed a fortnight later as it caused annoyance and apparently pressed on a nerve. 9. A photograph of a piece of red-rubber catheter over three inches long encrusted with phosphatic calculus which had been taken from the bladder of a man, aged 71 years. The calculus was crushed and evacuated and the cathether was removed by lithotrite. 10. A photograph of a silver tooth-plate measuring two inches by one and a quarter inches extracted from the pharynx of a man, aged 36 years, after nine hours. 11. A photograph of a tooth-plate, vulcanite and metal, with attachment hooks, measuring two inches by one inch by one inch, which had been swallowed and which was removed eight days later by œsophagotomy with success. 12. An iron staple one inch long and one inch wide which had been swallowed by a boy. A radiogram showed it to be lying in the pelvis three days later and it was passed per anum on the next day. 13. A piece of turned oak, seven inches by half an inch by three-quarters of an inch, known as a "knitting-sheath," which was removed from the rectum of a man, aged 70 years, after a fortnight. No harm resulted. 14. Radiograms of the ankle of a girl, aged 15 years, showing a piece of glass broken off a strip of window-glass one inch long, more than one-eighth of an inch wide, and less than one-eighth of an inch thick. The object had been there five years, causing slight but very persistent disability of the ankle-joint; it was removed with an end to all trouble. A radiogram was shown of the parts after removal of the glass.—Mr. DAMER HARRISSON, Dr. W. ALEXANDER, Dr. C. A. HILL, and Professor H. BRIGGS related instances of other foreign bodies and commented upon some of Mr. Parker's series.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Axis-traction Forceps in Midwifery.—Resonance to Percussion over Ovarian Tumours.—Exhibition of Cases, Pathological Specimens, &c.

A MEETING of this society was held on Dec. 6th, Dr. A. G. BARBS, the President, being in the chair.

Dr. J. B. HELLIER read a paper on the Use of Axis-traction Forceps in Midwifery. He briefly sketched the development of the midwifery forceps, demonstrating the need of the third or perineal curve. He described the points requisite for the construction of an efficient traction instrument and showed and criticised various patterns now on the market. He examined the objections urged against such instruments in several modern works on midwifery and alleged that the difficulty of application could be very easily overcome. It was quite a mistake to assert that in any way the prognosis to the child was less favourable than when ordinary forceps were employed. Axis-traction forceps were suitable for low cases as well as high. He believed that if anyone who had had experience of old patterns would use the axis-traction forceps sufficiently to become familiar with their application and would apply them in a few really difficult cases they would not again abandon their use.—Mr. C. J. WRIGHT, Dr. J. BRAITHWAITE, Dr. E. O. CROFT, and Mr. J. W. DRAPER took part in the discussion, and Dr. HELLIER replied.

Dr. E. O. CROFT read notes of cases illustrating Resonance to Percussion over Ovarian Tumours. He said that the chief conditions which might give rise to a resonant note over the situation of an ovarian tumour had been described thus: (1) by intracystic changes producing gas, such as decomposition of contents after tapping or suppuration associated with gas-forming bacilli; (2) by the entry of air into a cyst from a communication with the bowel produced by the breaking through of an adherent portion; and (3) by the displacement forwards of coils of intestine and their adhesion to the front of the tumour. The following illustrative cases were described. In the first case, that of a married woman, aged 27 years, the mother of one child who was born seven years previously, abdominal enlargement was noticed about 18 months before. She had "caught cold" during menstruation which was arrested. Three months afterwards a severe attack of peritonitis occurred. The tumour was then discovered and there were normal physical signs of an ovarian cyst of about the size of a child's head. The symptoms were subsiding and operation was therefore postponed. A few weeks later the outline of the cyst could be felt as before, but over its whole area the percussion note had altered to one of tympanitic character. Ovariotomy was performed. The tumour, with twisted pedicle and many adhesions, was found to be full of fœtid gas. Only a very small amount of foul pus existed in its lowest pocket. There was no opening of communication with any portion of bowel. The gas was evidently produced by gas-forming bacilli associated with suppuration, the infection probably having gained access by means of the damaged vitality of the adherent portion of bowel wall. The patient made a good recovery. Unfortunately a bacteriological examination was not made. The second case was that of a married woman, aged 38 years, who had undergone two pregnancies, the last one 10 years ago. For four or five years she had suffered from severe attacks of abdominal pain at intervals. About 12 months ago she had had an attack of peritonitis and about one month before operation a more severe attack. Menstruation was regular throughout. On examination the abdomen was seen to be enlarged by an obvious cystic tumour. On percussion a central area of dulness existed with the umbilicus at its centre. The area of dulness was distinctly surrounded by tympanitic areas in the epigastric, in both the hypochondriac, and in the lumbar regions, but in addition a broad tract of tympanitic resonance existed across the iliac and hypogastric regions. The physical signs were thus suggestive of a pancreatic or mesenteric cyst. A pelvic examination revealed, however, the fact that when the uterus was pulled on by vulsellum forceps it dragged on the tumour. A probable diagnosis of ovarian tumour with long pedicle and abnormal relations of bowel was made. The abdomen was opened. The tumour proved to be a large dermoid of the left ovary embedded in adhesions. The pedicle was twisted so that the original left surface of the tumour had passed across anteriorly to the right and in doing so had drawn with it a mass of adherent bowel which was found lying across the lower half of the front of the tumour. The tumour was removed and the patient recovered.—The PRESIDENT, Mr. H. LITTLEWOOD, and Dr. HELLIER discussed the paper and Dr. CROFT replied.

The following cases, pathological specimens, &c., were exhibited:—

Dr. HELLIER: (1) Various Patterns of Axis-traction Forceps; (2) Vesicular Mole which caused Hyperemesis Gravidæ; (3) two specimens of Early Adeno-carcinoma of the Fundus Uteri removed by vaginal hysterectomy; and (4) Schultz's Obstetric Phantom with an appliance for contracting the pelvis.

Mr. LITTLEWOOD: (1) Erasion of the Knee-joint for Tuberculous Disease (a man, aged 40 years); (2) three sets of Uterine Appendages removed for salpingitis associated with ovarian cysts; (3) photograph of an enormous Inguinal Hernia; and (4) (with Mr. T. CARTER) a case of Excision of the Upper Jaw (the patient was fitted with an obturator).

Dr. C. M. CHADWICK and Mr. EDMUND ROBINSON: Purpuric Eruption of 30 years' Duration.

Dr. CHADWICK: (1) Unusual Skin Condition; (2) Enlarged Spleen with Hemiplegia in a patient who had suffered from Malta fever; and (3) Chorea in a Child, aged three years, following on Acute Rheumatism with Involvement of the Mitral Valve.

Dr. T. WARDROP GRIFFITH: (1) A case of Acquired Syphilis in a Child; and (2) a specimen of Extensive Rheumatoid Arthritis.

Mr. G. CONSTABLE HAYES: (1) Two cases showing Remains of Pupillary Membrane; and (2) a case of Detached Retina with Hæmorrhages in a Boy, aged eight years.

Mr. B. G. A. MOYNIHAN: (1) Several specimens of Renal Calculi; (2) specimens from three cases of Partial Nephrectomy—two solitary cysts and one tumour of doubtful nature; and (3) specimens from cases of Complete Nephrectomy—(*a*) papillomata of the pelvis of the kidney, (*b*) growth of suprarenal capsule involving the kidney, and (*c*) cystic kidney.

Mr. MAYO ROBSON: Uterus with a Fibro-myoma expanding the Layers of the Broad Ligament.

Dr. H. J. CLARKE (Doncaster): An Abnormal Premature Fœtus.

Dr. E. F. TREVELYAN: (1) A case of Profuse Hæmatemesis in a man (treated with gelatin); (2) an unusual case of Wasting of the Muscles of the Forearm; (3) a case of Functional Intentional Tremor of the Arm; (4) a case of Graves's Disease with a previous history of acute insanity; (5) a case showing Retrogression of Marked Cerebral Symptoms with the exception of the papillitis which had passed into atrophy (? quiescent tuberculous tumour); and (6) a case of Laryngeal Paralysis.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.—Temperature of Phthisis.—Suprapubic Prostatectomy.

A MEETING of this society was held on Dec. 4th, Professor T. R. FRASER, the President, being in the chair.

Dr. W. ELDER and Dr. A. MILES showed a patient after the removal of a Tumour from the Left Prefrontal Lobe of the Brain. The case was that of a man, aged 47 years, who became more and more apathetic, dull, and emotional until he became comatose. There was an indefinite history of syphilis. As he appeared to be dying the skull was trephined and an apparently organised gumma was shelled out from the left prefrontal lobe. He made an excellent recovery.

Dr. G. LOVELL GULLAND and Dr. A. LOGAN TURNER showed a patient after operation for Laryngeal Tuberculosis.

Mr. JOHN SHAW M'LAREN exhibited a patient after recovery from a Compound Depressed Fracture of the Skull and Lepto-meningitis.

Mr. DAVID WALLACE, C.M.G., showed Beckmann's Apparatus for ascertaining the Freezing-point of Blood.

Dr. D. LAWSON of Nordrach-on-Dee read a paper entitled, "Some Clinical Observations upon the Temperature of Phthisis based upon Experience of 100 Consecutive Cases treated by Open-air Methods." Progress towards arrest in an active lesion was characterised, he said, by well-marked clinical phenomena which appeared and were maintained simultaneously. Weight was gained, the pulse-rate fell, the respiration-rate fell, and the temperature fell by lysis and diminished in amplitude. In one case of acute fibro-caseous tuberculosis in a male, aged 22 years, the treatment extended over six months. During this time the pulse-rate fell approximately from 95 to 78 and the respiration-rate from 23 to 13. The amplitude of temperature variation was diminished by almost 1° C. (1·8° F.), and the net gain in weight was 17 pounds. If these phenomena were not associated there were grounds for apprehension. Thus he had seen on more than one occasion death occur after a considerable gain in weight. In one case, although the patient's condition was critical, yet in one week he gained five pounds in weight and within a few days of his death he actually weighed over 12 pounds more than when he first came under observation, while in reality he was losing ground. In another case the truth of the observation that deviation from the general rule was unfavourable was even more marked. Not only was a gain in weight observed, but also a fall in temperature, while the case was steadily going downwards, and the presence of Ehrlich's diazo-reaction was an extremely unwelcome factor. The temperature in phthisis was characterised by two qualities—(1) inelasticity and (2) instability. By inelasticity was meant that tendency which a temperature exhibited when disturbed by any exciting cause to remain in the altered condition after the withdrawal of the disturbing factor. This was illustrated by several charts relating to phthisical patients after such exercise as hill-climbing. By instability was meant a marked sensitiveness to reaction, an extreme liability to become disturbed in the presence of apparently trivial influences, influences so slight that they produced practically no effect on the temperature in health. Among those might be cited slight derangements of the digestive or nervous systems or marked variations in the surrounding atmospheric temperature. The rectal method of taking the temperature was incomparably more reliable than any other and should be adopted in every case of pulmonary phthisis except in those where there were local complications such as hæmorrhoids or ischio-rectal abscess. The rectal method had the following advantages: (1) in some cases of genuine relapse the rectal temperature rose some time (even as much as 12 hours) before the thermometer gave any indication elsewhere; (2) it rose higher both relatively and absolutely at such times than the temperature elsewhere; (3) it was disturbed by trivial factors, such as slight indigestion and nervous causes which often did not affect the axillary range; and (4) it was especially serviceable in connexion with the question of when to begin and how to regulate a patient's exercise. In some of these cases the axilla as a guide was quite worthless and the mouth was nearly so. In every early case of phthisis the temperature ought to be recorded at least four times daily. Temperature in relation to exercise was a complicated and intricate question. It had been customary to assume (1) that exercise always caused a rise in the tuberculous subject, and (2) that a temperature of 98·6° F. at 8 A.M. contra-indicated exercise. These statements were for the most part true, but they were open to many exceptions. Dr. Lawson stated that the effect of exercise on a tuberculous subject might be either to depress the temperature or to raise it. A chart showing the typical subnormal range of temperature in an ordinary case of fibroid phthisis was shown. The patient was kept at rest, and the temperature at one point was about normal. Under a walk of one and a quarter miles the temperature fell 1° C. When again this was discontinued the temperature rose to the level which it first occupied. Doubtless the low temperature in this case represented a temperature of exhaustion brought on by the exercise, small in amount though it was. It was an example of exercise producing a fall in temperature. In another fibroid case with distinct cavity formation present the patient was kept in bed because her morning temperature was 98·6° F. She had gained 20 pounds in weight in eight weeks, but as no improvement otherwise took place exercise was begun and gradually increased until she walked four miles daily. Marked improvement took place and the temperature fell almost at once. Exercise usually raised the temperature; it did so in about three cases out of four. Of much more importance, however, than the extent of the rise was a characteristic of that rise (first recognised by Bardswell), already alluded to as the elasticity of the tuberculous temperature. If the exercise taken had not transgressed the limits of beneficial exercise the temperature would invariably fall to 37° C., or very near it, during the next hour. Should it fail to do so there were good grounds for caution, and limitation in the rate and extent of the exercises was indicated.—Dr. ALEXANDER JAMES, Dr. GULLAND, and Dr. WILLIAM TAYLOR took part in the discussion.

Mr. WALLACE read a paper on Suprapubic Prostatectomy with notes on 13 cases. He said that a patient might suffer from all the symptoms of prostatic hypertrophy and yet the gland might not be enlarged. This fact had led Poncet to divide cases of prostatism into two groups—(1) those due to enlargement of the prostate mechanically interfering with the outflow of urine; and (2) those due to septic conditions, without enlargement of the prostate, but presenting symptoms similar to those with enlarged prostate. This difference in cause at once led to a difficulty in diagnosis and in the determination of suitable treatment. A consideration of symptoms alone could not determine whether the prostate was enlarged. Enlargement of the gland detected on rectal examination did not necessarily imply mechanical obstruction to the urethral orifice. An apparently small prostate might yet possess an intra-vesical enlargement which might impede urination. At the outset, therefore, much difficulty might be experienced in judging of the condition of the prostate, and the plea for suprapubic cystotomy was strengthened from the standpoint of diagnosis. The view of Guyon, that "the radical treatment of enlarged prostate does not nor cannot exist," still held in the sense that no one method of treatment could be termed "radical" when applied to all cases. The etiology of hypertrophy of the prostate had not yet been satisfactorily determined. The view upheld by the French school that the enlargement was secondary to arterio-sclerosis was untenable. Whatever might be the origin of the enlargement it was often due to the formation of masses of glandular tissue which formed fibro-adenomatous or fibro-myomatous tumours similar to those occurring in the uterus. Three varieties of enlargement might be recognised—(1) vascular, (2) fibrotic, and (3) fibro-adenomatous or fibro-myxomatous. Any one of these might act mechanically to produce bladder changes and those symptoms associated with over-distension grouped together as those of "chronic incomplete retention." Four methods of treatment were at present in use—(1) catheterism; (2) cystotomy—(*a*) perineal and (*b*) suprapubic; (3) castration or vasectomy; and (4) prostatectomy—(*a*) perineal and (*b*) suprapubic. Personally Mr. Wallace thought that the catheter should be used if possible only in those cases where the condition had not reached atony of the bladder, and castration or vasectomy only in those cases where catheterisation had become more difficult or associated with cystitis or bleeding which had come on subsequently to the use of the catheter. He recognised that castration and vasectomy had met with much success, but both had the great disadvantage that accurate diagnosis was not possible, and if either failed to relieve the symptoms time had been lost and the patient after all had to submit to cystotomy. Besides, the mortality of castration was as high as was that of prostatectomy if all cases were considered. Perineal cystotomy could very seldom, if ever, be a better or safer procedure than suprapubic cystotomy. The latter was particularly advantageous, as it enabled the condition within the bladder to be seen precisely. The bladder could be drained by Cathcart's adaptation of the Sprengel pump with the knowledge that the bladder wall would contract and in many cases would recover ultimately its expulsive power. If need be, prostatotomy might be performed or prostatectomy might be adopted. With regard to the latter, much depended on the condition of the prostate. A middle lobe was readily removed; large adenomatous growths could be enucleated, and these were the favourable cases to treat by this method. Mr. Wallace did not believe that all prostates were suitable for even partial removal, and he believed that complete removal of the prostate without opening into the urethra was an anatomical impossibility. This operation, which seemed so natural, had not been so universally adopted even in suitable cases as might have been expected. The factors which influenced surgeons against it, he thought, were: (1) the supposed danger of suprapubic operations; (2) the relief given to patients

suffering from the effects of enlarged prostate by "catheter life"; and (3) the introduction a few years later of an apparently rational operation (castration). As regards the first objection Mr. Wallace gave his own statistics. He had performed 40 operations for very different conditions—tumours, calculi, tubercle, and enlarged prostate. In the majority the urine was septic, while in many the patients were very ill. Amongst these there were five deaths, giving a percentage mortality of 12·5. Two of these deaths occurred in cases of tuberculous bladder, one in a case of vesical tumour, one in a case of septic cystitis plus stricture, and one in a case of simple prostatectomy. These figures showed that suprapubic cystotomy *per se* was not dangerous. The operation was easy and rapid and with reasonable care the peritoneal cavity was safe. If there had been atony of the bladder it might be drained for from three to four weeks. Mr. Wallace then shortly described 11 cases in which he had performed prostatectomy.—Mr. J. M. COTTERILL, Mr. C. W. CATHCART, Dr. A. G. MILLER, and Mr. A. A. SCOT SKIRVING took part in the discussion which followed.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Suppurating Ovarian Cyst.—Posterior Vaginal Cœliotomy.

A MEETING of this section was held on Nov. 22nd, Dr. W. J. SMYLY, the President, being in the chair.

Dr. H. JELLETT read a paper entitled "Notes on a Case of Suppurating Ovarian Cyst complicated with a Large Intraperitoneal Abscess." The patient, who was 38 years of age, was admitted to Sir Patrick Dun's Hospital on July 27th, 1901. She was then in a very critical condition owing to the presence of a tumour which occupied the lower portion of the abdomen. She had been ill for five weeks, her temperature was 101° F., and her pulse varied from 100 to 120. Opening the abdomen resulted in the evacuation of a large collection of most fœtid pus, which had accumulated in the peritoneal cavity, among the intestines. The cavity was then washed out and plugged. The existence of a tumour in Douglas's pouch was also determined, but it was not removed owing to the state of the patient making it necessary to shorten the operation as much as possible. The condition of the patient after the operation was very serious and the discharge which escaped from the cavity was most offensive. The cavity was washed out twice daily with sanitas and water (25 per cent.) and the fœtor disappeared. Her temperature fell to normal on August 8th and the abdominal wound, which had not united, was re-sutured with partial success. However, on Sept. 1st the condition of the patient again became serious. Her temperature rose, she lost her appetite, and there was extreme difficulty in getting the bowels to move. On examination a cystic tumour was found in Douglas's pouch pressing on the rectum. This tumour was removed on Sept. 5th through an opening made in the posterior vaginal fornix. It proved to be an ovarian cyst containing a most fœtid accumulation of pus. It had apparently no connexion save with the right cornu of the uterus. This pedicle was clamped, and the cavity was plugged with sponges wrung out of very hot water on account of the large amount of general oozing from separated adhesions. No sutures were used. The sponges were removed on the next day and replaced by iodoform gauze. The patient's temperature fell at once and she steadily and continuously recovered strength. Dr. Jellett drew attention to the effect of hot sponges in immediately checking hæmorrhage.—Dr. A. V. MACAN, under whose care the woman was during the early portion of her stay in hospital, said that her condition was at that time very critical. He now thought that he should have drained the abdomen through the vagina, but there was a firm mass in Douglas's pouch and the patient's condition was very unpromising.—Dr. ALBERT SMITH and Dr. R. D. PUREFOY also discussed the case.

Dr. HASTINGS TWEEDY read a paper advocating Posterior Vaginal Cœliotomy (Prior's operation) as the operation of election rather than that by the Anterior Fornix. After incising the vaginal mucous membrane the wound should be enlarged by means of the fingers which were made to tear an entrance into the peritoneal cavity. The Trendelenburg position was now added to the ordinary gynæcological position. By this means the pelvic cavity could be well explored by sight, long vaginal extractors being employed to keep the edges of the wound apart. In cases where the vagina was roomy such an operation was simple, safe, and suitable for the removal of inflamed fœtal or other small tumours situated to the side or behind the uterus. The adoption of the Trendelenburg position would be found a distinct improvement in the technique of the operation by those who had previously not employed it.—Dr. MACAN, Dr. PUREFOY, the PRESIDENT, and others discussed the paper.

CARDIFF MEDICAL SOCIETY.—A clinical meeting of this society was held on Dec. 5th, Dr. D. R. Paterson, the President, being in the chair. The minutes of the last meeting having been read and confirmed, on the motion of the President, seconded by the treasurer (Dr. A. P. Fiddian), a hearty vote of congratulation was passed to Dr. W. T. Edwards, the senior member of the society, on his attaining his eightieth birthday, and the President, Dr. Fiddian, and Mr. William Sheen were appointed as a deputation to convey the vote to Dr. Edwards.—The President and Dr. F. W. Evans showed cases of Lead-poisoning with well-marked Paralytic Symptoms.—Dr. H. G. Cook showed a patient with Enlarged Glands in the Neck which had materially diminished after the administration of arsenic.—A discussion took place as to whether the enlargement was tuberculous or lymphadenomatous.—Mr. W. B. C. Treasure showed a patient with Aortic Stenosis and Arythmical Tachycardia; the condition followed acute rheumatism and had been aggravated by injudicious cycling.—Mr. Sheen showed a man in whom the Lower Ends of the Tibia and Fibula and the whole of the Astragalus had been removed for advanced tuberculous disease. The joint was entered by an external angular incision, no tendons being divided. The patient now did his work as a telegraph messenger. A skiagram showed the present condition of the bones.—Dr. P. Rhys Griffiths showed a man in whom he had Dilated a Stricture of the Ureter from the Kidney Pelvis after Nephrectomy. A marked increase in the quantity of urine excreted immediately followed the operation.—Dr. Cook showed a Calculus of the size of a walnut removed from the bladder of a girl, 10 years of age. It blocked the neck of the bladder and was removed by suprapubic cystotomy.—Mr. J. Lynn Thomas showed a photograph of an infant with a very large Occipital Meningocele which he had subsequently successfully removed.—Dr. Athol S. J. Pearse showed a complete and well-dissected specimen of Early Abortion. The decidua formed a complete cast of the interior of the uterus, showing the positions of the os uteri and the openings of the Fallopian tubes. In one upper corner was the sac containing a minute embryo. Dr. Pearse pointed out that such a specimen showed the possibility of menstruation continuing during the earlier months of pregnancy and also the possibility of a sound being passed without damaging the fœtus.—Mr. Sheen showed a photograph and drawing of a case of Vaccination Inoculation on the Cheek simulating Anthrax.—Dr. Ewen J. Maclean showed a specimen of Sarcoma Uteri which recurred four times in 10 months. Vaginal hysterectomy was performed. Death finally resulted. An interesting point was the occurrence of an implantation inoculation of the growth on the posterior vaginal wall.—Mr. E. Tenison Collins showed a specimen of Sarcoma Uteri with an attached Cystic Right Ovary, the whole being removed by vaginal incision. The patient did well.—Dr. Eldon Pratt described specimens of Duodenal and Typhoid Ulcers. He pointed out the evil of moving patients when the acute symptoms were present. This was illustrated by his cases.—Mr. Cornelius Griffiths showed skiagrams of Fractured Legs and Patellæ illustrating the transparency of callus of some duration. The medico-legal importance of this and the impossibility of skiagrams of pathological conditions being correctly interpreted by any but medical men were pointed out.—Mr. Tenison Collins described and illustrated by drawings a case of Inversion of the Uterus treated by Haultain's Method, this being, as far as he could ascertain, the second case done. After the abdomen was opened the stricturing part of the uterus was divided, the inversion was reduced, and the wound in the uterus was sewn up. The patient made an uninterrupted recovery.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 4th, Dr. E. C

Kingdon, the President, being in the chair.—Mr. A. R. Anderson read notes of, and showed the patient in, the case of a man, aged 47 years, who was admitted into hospital in the early part of this year with Epithelioma of the Skin of the Left Cheek involving the Parotid Gland. He had for years noticed a small lump there like a wart or mole, but it was only recently that it had begun to spread. On admission the ulcer, which was situated just in front of the tragus, measured one and a quarter inches by three-quarters of an inch, and was firmly adherent to the subjacent parts. It had a raised, everted, indurated edge and a hard, warty, irregular base, presenting quite a different appearance from the typical rodent ulcer with its slightly raised and scarcely indurated edges and its slightly depressed, glazed, pinkish base. In addition there were a few enlarged glands. The growth was freely excised, and as its base was found to involve the parotid a considerable portion of the gland was removed, as were also the lymphatic glands. The wound healed readily and the patient went home in a few weeks. Early in October he came back with recurrence in the scar-tissue over the cheek. He had now two typical epitheliomatous ulcers, one in front of the tragus, one and a half inches long by one inch broad, the other occupying the site of the tragus and extending for a short way down the meatus. It was evident that nothing short of a serious and extensive operation would suffice to ensure reasonable prospect of success. Treatment with the Roentgen light was begun on Oct. 26th, and continued by daily sittings for 21 days, at the end of which time the ulcers had disappeared and he was apparently cured, their site being occupied by pale, firm scar-tissue. The sittings for the first fortnight were of 10 minutes' duration, being increased during the last week to 15 minutes. A microscopic section of the growth removed at the operation was shown.—Mr. W. M. Willis and Dr. W. B. Ransom spoke on the case and Mr. Anderson replied.—Mr. T. D. Pryce read a paper on the Necessity of Medical Asepsis and Antisepsis. For the purpose of illustration attention was chiefly directed towards enteric fever, in which disease the speaker advocated boiling all excreta and recommended that the necessary utensils should be provided by the municipality who should collect periodically from the houses of typhoid fever patients and destroy such excreta.—The paper was discussed by the President, Dr. H. Handford, Dr. Ransom, and Dr. J. Mackenzie, and Mr. Pryce replied.—Dr. T. Aldous Clinch read notes on two cases of Herpes affecting (1) the first sacral nerve, and (2) the fifth lumbar nerve.—The President and Dr. Ransom spoke on the subject and Dr. Clinch replied.—Dr. Ransom read notes on a case of Intestinal Sand, and showed specimen. The condition appeared to have been the result of eating large quantities of pears, and the symptoms were such as to suggest gall-stones.—The President, Mr. J. Mackie, and Mr. Pryce spoke on the subject, and Dr. Ransom replied.—Mr. Anderson showed a skiagram of a Nail in the Right Bronchus of a Child. He also showed the nail, which was two inches long, and which had been removed by a high tracheotomy. A probe being then inserted the nail was struck at three and a half inches from the wound and subsequently removed with forceps. The patient recovered.—Mr. Willis discussed the case and related that of a child who had been under his care at the Nottingham General Hospital with a central upper incisor lodged in a bronchus. The x rays failed to reveal it. An attack of pneumonia supervened, from which the child recovered, and when convalescent suddenly died. The tooth was found at the bifurcation of the trachea at the necropsy.

MANCHESTER MEDICAL SOCIETY.—A meeting of this society was held on Dec. 4th, Mr. A. H. Young, the President, being in the chair.—Mr. W. P. Montgomery made a communication on a case of Acute Duodenal Pressure Obstruction. The patient, a youth, aged 15 years, whose previous health had always been good, was seized with an attack of acute gastro-intestinal catarrh, probably caused by ice-cream. The diarrhœa ceased after 24 hours, but the vomiting continued in excessively large quantities. 48 hours after the onset of symptoms a laparotomy was performed. The dilated stomach filled the whole abdominal cavity. After emptying the stomach and turning it upwards it was found that the duodenum was extremely dilated as far as the point where it was crossed by the superior mesenteric fold. The small intestines were collapsed and pushed down into the pelvis. When these were raised after the emptying of the stomach the duodenal contents passed onwards and the obstruction seemed to be relieved. The youth died a few hours later and the diagnosis was confirmed by the necropsy. The bearings of this and other cases on so-called acute idiopathic dilatation of the stomach were discussed and the lines of treatment were suggested.—Dr. A. Donald read notes of a case of Oöphorectomy for Cancer of the Breast and showed the patient. She was sent to St. Mary's Hospital, Manchester, by Mr. J. Hepworth of Eccles on June 22nd, 1900. She was 46 years of age and had not passed the menopause. The left breast was transformed into a hard mass firmly fixed to the chest wall and to the skin. The growth extended into the axilla. Double oöphorectomy was performed on June 23rd. Thyroid treatment was commenced a week before the operation and was continued as soon as convalescence was complete. On Nov. 12th the patient was readmitted. The breast was much smaller and softer and was quite mobile except at one small spot. The mass in the axilla could not be felt. On the 14th the breast, with the axillary glands and a portion of the pectoralis major muscle, was excised. In April, 1901, two small nodules were found in the scar and were excised. On Sept. 4th some hard masses were found in the supra-clavicular region. At the time of reporting the patient's condition was much better than when she was first seen—an interval of nearly 18 months. She had gained weight and had no pain. The nodules in the scar and in the glands above the clavicle were increasing.—Dr. Thomas Harris read a paper on Different Varieties of Stethoscopes, and showed a large collection of different kinds of ancient and modern type. His conclusions were that the attempt to invent a universal stethoscope, either of the monaural or binaural type, which would suit everyone would be sure to be fraught with failure; that what suited one man's ear did not suit another, the consideration of the comfort with which an instrument could be used was much more important than any other detail in the shape of the instrument; that more depended upon the physician than upon the instrument which he used; and that immediate auscultation was too much neglected and was very valuable in many cases. Dr. Harris also referred to a series of experiments which he had made, showing that in the ordinary monaural stethoscope the chief conduction took place through the wood and not through the air column.

MIDLAND MEDICAL SOCIETY.—A meeting of this society was held on Nov. 27th, Dr. Arthur Oakes, the President, being in the chair.—Dr. E. S. Nutting and Mr. C. G. Higginson were elected members of the society.—Dr. O. J. Kauffmann showed a Case for Diagnosis. It was that of a girl, aged 11 years, who was affected with a slowly progressing paralysis, with ataxia, which had commenced at the age of eight years. There was no evidence of congenital syphilis and no history of the paralysis following on acute infective disease. The legs were now extremely weak and in spastic extension which was, however, not very rigid; six months ago, when she could still walk a little, there was some reeling ataxia of the gait. The arms were weak and tremulous, the tremors resembling those of insular sclerosis in every respect. There was also a little shaking of the neck and trunk on exertion; no nystagmus had been observed, and her fundi oculorum and pupils were normal. The voice was extremely low and a little nasal, as though there was slight paresis of the soft palate; utterance was very slow and very imperfect, but could not be described as scanning. The ends of the words were clipped and their meaning was understood with difficulty; there was no aphasia. Sensation all over the body was normal. The bladder and rectum were controlled. The mind showed a condition of quiet satisfaction and the face wore a permanent smile. The intellectual development was not that of a child 11 years of age and would have been poor for a child six or seven years of age. Dr. Kauffmann was inclined to regard the case as one of hemispheral cortical degeneration. The view of its being one of hereditary cerebellar ataxia was propounded and the question of insular sclerosis was discussed.—Mr. W. F. Haslam showed a woman, aged 49 years, whom he had Treated for Trigeminal Neuralgia by the Injection of Osmic Acid as suggested by Sir William H. Bennett in THE LANCET of Nov. 4th, 1899, p. 1220. The neuralgia had existed for six years and during the latter half of that period the pain had been very severe, while for the last six months it had been almost more than she could bear. Immediate and complete relief

followed the operation, which was performed four months ago, and there had been no return of pain. Mr. Haslam pointed out that though it was too soon to speak positively about the curative effect of the method in this case there was every reason to believe that the results were at least as good as those obtained by the major surgical operations devised for the relief of this terrible condition.—Mr. George Heaton showed a Dentigerous Cyst which he had removed from the lower jaw of a boy, aged 11½ years. The cyst, which was of the size of a pigeon's egg, contained clear straw-coloured fluid. A bicuspid tooth of the permanent set was fixed in its wall with the crown projecting into the cavity of the cyst. The fangs of the tooth were ill-developed. The cavity left in the jaw was packed with gauze and closed up by granulation.—Dr. C. E. Purslow read a paper on Acute Hydramnios, and Mr. Leedham Green a paper on the Closure of Traumatic Defects of the Skull.

ÆSCULAPIAN SOCIETY.—A meeting of this society was held on Dec. 6th, Dr. Arthur T. Davies, the President, being in the chair.—Dr. Sydney P. Huggins showed a specimen of Intestinal Obstruction due to Meckel's diverticulum removed from a boy, aged two years and 11 months, who succumbed 36 hours after the onset of abdominal pain and vomiting and very shortly after being first visited.—Mr. Harold Barnard showed two similar specimens. One of these, from a child, three months old, was complicated by the presence of an inguinal hernia. The patient who was almost dead when operated upon died soon after the operation for the relief of the inguinal hernia.—Dr. Leslie Durno read notes of Drug Rashes. 1. In a robust man two pills of ipecacuanha with squill (P.B., 1898) induced great skin irritation, erythema, swelling, petechiæ, and desquamation lasting 14 days. 2. Tinnitus, vomiting, and desquamation of the skin of the face following two-grain doses of quinine three times a day. 3. Copaiba rash in a youth in whom desquamation continued for three weeks. 4. A rash, like measles, lasting a few hours following a dose of calomel.—Dr. L. V. Young related a case of an Iodide Rash following the taking of five grains of iodide of potassium thrice daily for four days which bore a very close resemblance to variola. In this there were œdema of the eyelids, papules, vesicles, and pustules present at the same time on different parts of the body and together on the head and face. Recovery was not complete in two months.—A general discussion followed.

IPSWICH CLINICAL SOCIETY.—A meeting of this society was held on Nov. 14th.—A very interesting lantern demonstration was given by Dr. J. Purves Stewart on the Value of Inspection in the Diagnosis of Nervous Diseases. Slides were shown illustrating the following:—posture in organic hemiplegia; contrast with functional hemiplegia; athetosis; pes cavus; the plantar reflex; normal flexor response and abnormal extensor (Babinski's) response; posture in paralysis agitans; hypertonia in tabes rendering abnormal postures of the limbs possible; posture in lesions of the cervical enlargement, especially of the fifth and sixth cervical segments; ruptures of the brachial plexus, their association with paralysis of the cervical sympathetic if the lowest roots of the plexus were torn; diagnosis of lesions of various cranial nerves by inspection; lesions of the crus cerebri; lesions of various spinal nerves; and posture in pseudo-hypertrophic paralysis, &c.—At the close of the lecture a very hearty vote of thanks to Dr. Stewart was proposed by Mr. R. W. Brogden and seconded by Mr. Branford Edwards.

ROCHDALE AND DISTRICT MEDICAL SOCIETY.—At a meeting of this society held on Dec. 5th Dr. Ernest S. Reynolds gave a lantern demonstration of Photographs illustrative of Nervous Diseases, both from the Clinical and Pathological Aspect. The cases shown comprised—(1) cerebral diseases; (2) diseases of the spinal cord; and (3) peripheral neuritis. In the course of his remarks Dr. Reynolds said that early cases of disseminated sclerosis were sometimes diagnosed as hysteria and that cases of hysteria in which ankle clonus could be obtained should be carefully observed for further symptoms. The retropulsive gait in paralysis agitans had been said to be rare, but it was probably as common a symptom as the propulsive if duly looked for. It was not the case that in locomotor ataxia the heel left the ground last in walking. The movements of the foot in relation to the ground were the same as in ordinary walking. This was proved by an instantaneous photograph. It was doubtful whether alcohol alone ever caused peripheral neuritis.—Dr. Reynolds was awarded a hearty vote of thanks by the society for his instructive demonstration.

WIGAN MEDICAL SOCIETY.—A meeting of this society was held on Dec. 5th, Mr. W. Latham, the President, being in the chair.—Dr. F. Rees contributed a paper on Epidemic Jaundice, detailing a number of cases, and he was followed by Dr. J. Blair who gave the clinical history of several cases which he had seen in his own practice.—A very interesting discussion took place in which the following members took part: The President, Mr. H. E. Jones, Mr. T. M. Angior, Mr. C. M. Brady, Mr. Holmes, Mr. Benson, Dr. R. P. White, Dr. Boyd, and the honorary secretary.—A vote of thanks was accorded to Dr. Rees and Dr. Blair.—Mr. M. G. McElligott showed a case of Enlarged Spleen in a man 30 years of age.

FOLKESTONE MEDICAL SOCIETY.—A meeting of this society was held on Nov. 29th, Dr. W. J. Tyson, the President, being in the chair.—Mr. H. Braund was unanimously elected a member.—Mr. M. G. Yunge-Bateman opened a discussion on the Notification of Tuberculosis.—The following also took part: Dr. T. Eastes, Dr. C. E. Perry, Dr. C. Latter, Dr. A. Gordon Wilson, Mr. M. Dobbs, Dr. P. G. Lewis, Mr. W. P. Barrett, Mr. W. F. Chambers, Mr. W. W. Linington, and the President.—Dr. Latter proposed "that a hearty vote of thanks be given to Mr. Yunge-Bateman."—This was seconded by Dr. Eastes and carried unanimously.

Reviews and Notices of Books.

Zoology: An Elementary Text-Book. By A. E. SHIPLEY, M.A., and E. W. MACBRIDE, M.A., D.Sc. Cambridge: University Press. 1901. 8vo. Pp. xxi.-632, with 349 Figures in the text. Price 10*s.* 6*d.*

THE intending student of zoology has not much difficulty nowadays in finding a text-book to initiate him into the science. His difficulty, indeed, is in selecting from among a crowd so large that the choice becomes a little bewildering without some guidance. In the course of the following remarks we shall endeavour to indicate some of the features of this, the newest, text-book of elementary zoology for the guidance of the perplexed beginner. Good paper, clear type, abundant illustrations, and general attractiveness are superficial merits but none the less real. We well remember some of the dingy and depressing manuals which were placed before us for instruction in the "seventies"; at that time the translation of Gegenbaur came as a revelation of what trivial accessories could do to render the contained matter inspiring. But the practice of producing text-books of superior get-up is now so general that the matter requires no prolonged comment. One feature which impresses the reader in a preliminary turning over of the leaves of the handbook of Mr. Shipley and Professor MacBride is the prevalence of new illustrations, especially among the vertebrata; a number of these have been, it is to be presumed, drawn from specimens in the Cambridge Museum.

The method followed by the authors is to commence at the root of the tree of life and to work upwards. Now many distinguished authorities hold that in treating of animal structure it is desirable to commence with the higher forms and gradually to work down to the lower forms. In favour of this is the fairly certain fact that some notion, however rough, of human anatomy is possessed by most persons, whereas the very methods by which the lower animals are studied are new to the beginner. There is, however, no transition between the dissection of a frog with a scalpel and scissors and the examination of an amœba with a microscope. The plunge into an unfamiliar subject must be made some time, and why not at the very outset? Besides, to begin with the low forms and to work upwards to the higher forms in an ascending order has the undoubted advantage of presenting the facts in logical sequence. We agree with the authors in adopting this plan, though they depart from it by placing the non-cœlomate worms at the

very end of the book after the mammals themselves. As, however, the cœlom is made the keystone of the animal edifice their behaviour in this respect is justifiable.

An introductory chapter deals with various prolegomena, such as protoplasm, the differences between animals and plants, and classification. Not without point, on the assumption that the reader will be a beginner, is the observation that it is rash to try to interpret the actions of beasts by motives and emotions like those which cause the sometimes apparently similar actions of human beings. The hyæna and the Australian kingfisher at the Zoological Gardens frequently laugh loudly and long, but we need not assume that this is due to joy any more than we are compelled to put down to an expression of mingled misery and anger the occasional snarls of a wild cat in the same institution. But after this preliminary caution the authors have little to say about the psychological side of zoology. The work is, in fact, almost purely anatomical and the structure of a chosen type is explained in detail followed by a survey of the group to which it belongs. Added to this it should be noted that in order to avoid repetition the authors treat in a more lengthy fashion the animals which stand at the beginning of the series; certain generalities are there explained which need not be subsequently referred to. There is thus in this book a greater mass of matter than might be inferred from its actual length, considerable though that, after all, is. Two such experienced investigators and teachers as are Mr. Shipley and Professor MacBride would be hardly likely to cause criticism by actual errors of fact. We do not find much to correct in this respect, though the complete elimination of even the most elementary errors, even by persons well acquainted with their subject, is, as we have ourselves found and as the late Professor Milnes Marshall observed, "curiously difficult." The authors should, however, in a subsequent edition revise the account of the bird's syrinx at p. 492, as from their statement it might be inferred that in all birds the membrana tympaniformis externa is present; it is, of course, absent in most of the storks and in some other birds. It is, indeed, rather with interpretations of facts that we occasionally disagree with the authors. For example, when they say (p. 27) that a mass of protoplasm divided into units each with its nucleus would not be a protozoon we would refer them to such forms as volvox. It seems, also, a little difficult to grasp what they mean in writing (p. 32) that the extinction of protozoa which do not conjugate, but only reproduce by fission, "is the nearest approach to natural death which is met with among the protozoa." What on earth—or rather out of it—is it but death? These points, however, do not greatly detract from the usefulness of this really meritorious text-book.

Epilepsy and other Chronic Convulsive Diseases. By Sir WILLIAM GOWERS, M.D., F.R.C.P. Lond., F.R.S. Second edition. London: J. and A. Churchill. 1901. Pp. 320.

IT is just 20 years since the first edition of this truly classical work was published. It has been long out of print and very difficult to obtain. We welcome a second edition, and while we note how well and completely it has been brought up to date it is a high compliment to the excellence of the first edition to remark that in spite of the fact that the deductions now tabulated are from a much more extensive series of cases than were those of the first edition—viz., 3000 cases as contrasted with the earlier series of 1450—it is astonishing to what a small extent the results arrived at in the first series of cases have been modified by the larger number now included. As has just been said, it is an indication of the high value to be attached to the earlier book that such is the case. It is scarcely necessary to enumerate the salient features of the book, the titles of the different chapters are a sufficient index. The first deals broadly with epilepsy in relation to its various causes, predisposing and exciting; the second, third, and fourth with the symptoms, set forth in rich and varied detail; the fifth with organic epilepsy; the sixth with hysteroid convulsions and hystero-epilepsy; the seventh with what may be called the clinical pathology of epileptics; the eighth with the course of the disease; the ninth with pathology; and then follow in order chapters on the diagnosis, prognosis, and treatment of the disease. It need only be said that the work is a complete monograph on the subject and that all the latest advances both in the investigation of its pathology and treatment are set forth in great detail and with admirable lucidity. Students of Dr. Hughlings Jackson's evolutionary doctrines may perhaps be a little disappointed to find their master's views not quite so freely set forth as they might have wished, but those views have received recognition and, in regard to many points, cordial appreciation and adoption.

All who are interested, either for theoretical or practical reasons, in the fascinating subject of epilepsy, will heartily welcome this volume—a marvel of industrious and illuminating research—and will cordially congratulate the author on a piece of work which places his profession—for which he has done so much—under a still deeper debt of gratitude to him.

Pharmacopœdia. By EDMUND WHITE, B.Sc. Lond., F.I.C., Pharmaceutist to St. Thomas's Hospital, London; and JOHN HUMPHREY. London: Henry Kimpton. 1901. One vol., crown quarto. Pp. 600. Illustrated. Price 14*s.* net.

THE word which forms the title of this excellent work is derived from the Greek φαρμακον and παιδεια, and the meaning is simply "information about medicines." The book is one for the pharmaceutical chemist rather than for the medical man. It is a work designed as a companion to the "Pharmacopœia Britannica" and should be read side by side with it. The work is carefully done, and the book may well be considered indispensable to the well-educated chemist. In a comprehensive and lucid manner the authors deal with the chemistry, the botany, the pharmacognosy, and the pharmacy of the drugs of the "British Pharmacopœia," and their work differs from that of many other writers on such subjects in being of good literary style.

The galenical preparations of the "Pharmacopœia" are described, each in its appropriate pharmacological place. There are copious illustrations of crude drugs, and the 46 plates devoted to them are beautifully executed. As far as we know no book of the kind has been previously published, and it may be therefore truthfully stated that the book meets a "distinct want." It might be supposed that in a volume written by authors who have been dispensing medicines for many years there would be a great deal of verbiage on the subject of methods to be adopted in the laboratory. Every teaching pharmacist no doubt has his own whims and fancies, if we may so term them. The critical faculty is exceedingly difficult to suppress, and laboratory methods certainly form a subject which might run away with anyone who knows his pharmacy well. In point of fact, such chapters on pharmacy as we have read are remarkable for their conciseness and practical utility. The book is one which all students may read without boredom and with much satisfaction. The "Pharmacopœia" and this companion, the "Pharmacopedia," are essentially guides for the dispenser, for their standards are fixed to meet the requirements of practical men in the dispensing trade and not of manufacturers on the large scale. We may add that the "Pharmacopedia" is well bound in red cloth, gilt and with marbled edges, and that we consider its price moderate.

LIBRARY TABLE.

Experimental Hygiene. By A. T. SIMMONS, B.Sc. Lond., and E. STENHOUSE, B.Sc. Lond. London: Macmillan and

Co. 1901. Pp. 322. Price 2*s.* 6*d.*—The Board of Education, in the syllabus recently issued for the examination in domestic science, requires a course of study embracing both physics and chemistry, but although there are already in existence many text-books dealing with these combined branches of science the majority of these have been written more especially for the use of medical students. The authors in the present instance have evidently endeavoured to produce a treatise that should impart the knowledge in as simple a manner as possible, whilst containing all the subject matter required by the syllabus referred to. By a practical application of the physical and chemical reactions described to the facts of everyday household management they appeal at once to the girl-student, for whom the book is primarily intended. The diagrams are numerous, and being, as a rule, original and well drawn, they form a very useful addition to the text. A few chapters devoted to the human body, digestion, and the chief constituents of such substances as flour, nitrogenous foods, fats and soaps are included, and here again the information given is clear and concise. The final section contains a brief account of micro-organisms and their work, with hints on the preservation of food, the necessity for cleanliness, and the prevention of contagion. The book throughout is well provided with descriptions of experiments, and these being of a simple and attractive character should encourage in the young student the faculty of observation and tend to impress essential facts on the memory. The authors may be congratulated on the production of a book that is suitable for the purpose for which it is intended.

A Topographical Atlas of the Spinal Cord. By ALEXANDER BRUCE, M.D., F.R.C.P. Edin., F.R.S.E. London: Williams and Norgate. 1901. 32 Plates.—The aim of the author in this work has been to set out in a pictorial manner the features of sections at each level of the spinal cord in such a manner as to facilitate the identification of the level of any particular section. It is thus a work which appeals more particularly to the specialist, and like all such works it is apt to miss the wider appreciation to which it is in every way entitled. No one who has not attempted such work can properly appreciate the industry and skill and artistic excellence which have been given to the work, and the author is to be congratulated on having produced a book which will be used daily in each neurological laboratory, and, we venture to think, will be most cordially appreciated. The plates are marvels of photogravure, as the sections must have been examples of great manipulative skill, and no praise is too great for the care which the author has taken to render the work in every way accurate and complete.

Whitaker's Almanack, 1902. By JOSEPH WHITAKER, F.S.A. London: 12, Warwick-lane. Pp. 776+143. Price 2*s.* 6*d.*—"Whitaker" is now in its thirty-fourth year, and every annual issue makes it more than ever a necessary book of reference for all British citizens. There is more good reading in "Whitaker" than in many rows of portlier tomes, and what Whitaker "doesn't know isn't knowledge," as the late Professor Jowett, in the familiar rhyme, is made to say about the scope of his own information. The almanack has this year been entirely reset from new type, and we understand from the preface that owing to the large increase that has taken place annually in the circulation the book will in future be printed from specially prepared plates. In addition to the usual changes, the Accession of King Edward VII. and the honours bestowed for services in the war have revolutionised the orders of knighthood, the increases in Companions alone being: C.B., from 639 to 741; C.M.G., from 385 to 672; D.S.O., from 345 to 1312; and C.V.O. and M.V.O., from 53 to 162. These additions have necessitated shortening of certain of the special articles, but they are quite as effective and interesting in their present four-page form as they were formerly under the guise of from 10- to 20-page articles. Other of the special articles which have from year to year been a feature of the book no longer make an appearance, but there is an admirable index of all articles which have been published in former issues. Monotonous praise is all we have to offer for a production which day by day and year by year saves our all too scanty time.

JOURNALS AND MAGAZINES.

The Journal of Comparative Pathology and Therapeutics. Edited by J. MCFADYEAN, M.B., B.Sc. Edin., F.R.S.E. Vol. XIV. Part III., September, 1901. Edinburgh and London: W. & A. K. Johnston, Limited.—The September quarterly number of this journal fully maintains the high standard which we are now accustomed to expect, though it is made up principally of reprints of papers that were read at the British Congress on Tuberculosis and have appeared elsewhere. These include Professor Koch's general address on the Combating of Tuberculosis in the Light of the Experience that has been gained in the Combating of Other Infectious Diseases; Principal McFadyean's address on Tubercle Bacilli in Cows' Milk as a possible Source of Tuberculous Disease in Man; Some Experiments on the Temperature necessary for Killing Tubercle Bacilli in Milk, by Professor Bang of Copenhagen; and How Can the Tuberculin Test be Utilised for the Stamping-out of Bovine Tuberculosis? by Professor Delépine. An original article by Principal McFadyean on the Bacteriological Examination of the Lesions in a Series of Horses that had Reacted to Mallein is of considerable interest, as he comes to the conclusion that his experiments, 26 in number, furnish no evidence at all regarding the curative effect of mallein. He finds that although some of the horses had apparently recovered 14 were proved not to have recovered, and, as he points out in the case of the former, it is quite possible that the course of the disease would have been the same if they had never been tested. He, moreover, shows that in some cases glanders bacilli were recovered from the lesions in several animals that had apparently failed to react to some of the later tests, and he insists that when a horse reacts distinctly to the first test non-reaction to subsequent tests repeated at monthly intervals cannot safely be accepted as evidence of complete recovery. Reports of three clinical cases and class lists complete this number.

The Quarterly Journal of Microscopical Science. Edited by E. RAY LANKESTER, F.R.S., with the coöperation of ADAM SEDGWICK, F.R.S., W. F. R. WELDON, F.R.S., and SYDNEY J. HICKSON, F.R.S., with lithographic plates and engravings on wood. London: J. and A. Churchill. 1901. Vol. xlv., part 2. Price 10*s.*—This part contains the following articles: 1. The Lateral Sensory Canals, the Eye Muscles, and the Peripheral Distribution of certain of the Cranial Nerves of Mustelus Lævis, by Edward Phelps Allis, jun., with three plates. The article is a long and carefully drawn up description of the ophthalmic nerves in many kinds of fish, and the author criticises the views of other writers. He considers that there are in fishes several ophthalmic nerves between which it is necessary to make careful distinctions. He compares each of these with its homologue in the higher animals. The plates illustrating the text are interesting and instructive. 2. The Anatomy of Scalibregma Inflatum, by J. H. Ashworth, D.Sc., with three plates. Scalibregma is a polychæte worm varying from one-fifth of an inch to more than two inches long, one-fifth of an inch broad, and having about 60 segments. The morphology and anatomy of the animal are very fully described. 3. On the Pelvic Girdle and Fin of Eusthenopteron, by Edwin S. Goodrich, M.A. The eusthenopteron is a fossil fish, and the interest attaching to it is that of all the numerous extinct fishes usually included in the group crossopterygii, which includes the living polypteridæ and the fossil diplopterus, cœlacanthus and holoptychius, it is the first and only one in which the parts of the skeleton of the pelvic girdle and its fin have been found complete and in their natural relations.

THE LANCET.

LONDON: SATURDAY, DECEMBER 14, 1901.

The Report of the Departmental Committee on Food Preservatives.

As we announced in THE LANCET of Nov. 30th, p. 1510, the report of the Departmental Committee appointed to inquire into the use of preservatives and colouring matters in food has at length been published. The committee discovered soon after their appointment that practically the question which they had to answer was: Are the substances at present in use for preserving or colouring foods or beverages so harmful to the health of the consumer as to call for prohibition, limitation, or declaration?—and to this question they have replied in very definite and, as we consider, reasonable terms. Nobody can doubt that the practice of putting preservatives in food is one which calls for control. We ourselves called loudly for such control some years before the committee were appointed, as we were receiving evidence day by day that the practice of adding preservatives was increasing and that no regard was paid to the choice of preservative or the quantity used. So strongly were we convinced that harm sooner or later would accrue, and that objectionable practices were likely to grow to an appalling extent, that we set on foot an inquiry with the result that public attention was forcibly drawn to the subject; and ultimately a Departmental Committee was appointed to consider the question and to place before the Government a definite pronouncement as to whether the practice demanded legislative interference—and if so how it could be applied without being vexatious to traders while at the same time protecting the health of the consumer.

Our view was that, certainly, in some instances the use of preservatives was legitimate so long as they were used in minimal quantity and that it could be shown that this minimal quantity, whilst sufficient to preserve the article of food in question, was harmless to the consumer. In a word, legislation whilst not encouraging the use of preservatives should specify the permissible substances for this purpose and should place limitations upon the amounts to be used. We are gratified to find that the recommendations of the committee, as now published, are almost exactly in accordance with this view. This accordance is all the more satisfactory to ourselves in view of the extraordinary care which the committee have evidently devoted to a consideration of the many points of view of the subject presented to them. They examined no less than 78 witnesses; they appointed sub-committees to inspect industrial processes at home and abroad; and the inquiry has lasted for just over two years.

We have had occasion more than once to complain of the delay of the publication of the report, for several months ago we understood that it had been placed upon the table of the House of Commons. The delay was regrettable because legal proceedings in the meantime had been instituted in various parts of the country against those employing preservatives in food with the result that contentions similar to those which were being threshed out by the Departmental Committee took place in the courts with an inevitable waste of time and money. Of course, the recommendations have yet to be approved by Parliament before they can become a basis of actual legislation, but we are pretty certain that pending an Act regulating the use of preservatives magistrates will be guided by the conclusions of this committee. And we think that they will be correctly so guided, for the conclusions represent the only course that science and practice have dictated. It is true that much conflicting evidence has been furnished, but the committee, in our opinion, have abundantly cleared the issues in their recommendations.

Let us take, for example, the case of milk. The committee regard as idle the idea that it is impossible to supply London with milk not artificially preserved. And they had ample evidence on which to ground this opinion. One witness stated that for several years he had consigned milk to London—a distance of 126 miles—under a contract which prohibited him from the use of preservatives; the only precautions which he adopted, and which he regarded as indispensable, were carefully to strain the milk and to cool it by means of water, after which treatment there was never any trouble from the milk going sour. Again, one large dairy company stated that they used no preservative whatever in milk, and evidence was given by the Royal Agricultural Society that to their knowledge farmers were sending the milk of from 500 to 1500 cows daily to London from Faringdon and Didcot without the use of preservatives. Doubtless the absolute prohibition of adding chemical preservatives to milk would be attended with some inconvenience at first, but, as the committee remark, they were impressed with the need for facing this inconvenience and for rendering the vendors of milk containing preservatives subject to penalties under the Sale of Food and Drugs Act. Milk is *par excellence* the natural food, forming a very large proportion of the daily fare of the public, and this fact, coupled with its use by invalids and infants, abundantly justifies the recommendation (B) that the use of any preservative or colouring matter whatever in milk offered for sale in the United Kingdom should be constituted an offence under the Sale of Food and Drugs Act; and again, on similar lines of reasoning, is justified the recommendation (E) that in the case of all dietetic preparations intended for the use of invalids or infants chemical preservatives of all kinds should be prohibited. Readers of THE LANCET will probably remember our practical inquiry which related to the quality of the milk supplied to the metropolitan hospitals. Out of 11 samples of milk examined no less than four were preserved, one with formaldehyde and the rest with boron preservative. We note with satisfaction that at the instance of the committee samples of the milk supplied to the London hospitals were sent to the Government laboratory with the result that only one was found to contain a preservative. We are justified, therefore,

in concluding that the report of THE LANCET Special Analytical Commission on the Quality of the Milk Supplied to the Metropolitan Hospitals, which was published in THE LANCET of Jan. 1st, 1898 (p. 54), did undoubted good.

In the case of cream it is proposed to make the addition of boric acid or mixtures of boric acid and borax lawful, but the amount must not exceed 0·25 per cent. expressed as boric acid. In the same way it is proposed that the only preservative permitted to be used in butter and margarine shall be boric acid or mixtures of boric acid and borax, the proportions not to exceed 0·5 per cent. expressed as boric acid. The use of formaldehyde or any of its preparations is to be absolutely prohibited, and salicylic acid is not to be used in a greater proportion than one grain per pint in liquid food and one grain per pound in solid food, its presence in all cases to be declared. The use of copper salts in the so-called "greening" of preserved foods is to be prohibited. This, perhaps, is the most sweeping suggestion and we are not surprised to find a difference of opinion on this point. Dr. TUNNICLIFFE emphasises the importance of the appetising appearance of food which may be a factor in determining its nutritive value and in his opinion the gratification of the public taste for a perennial supply of green vegetables should not be arbitrarily prevented without very definite reason, whereby an industry which, if not important, is at least thriving, might be destroyed. It is well to remember, also, that in France an order was issued prohibiting the use of copper for the above purpose and that this order had subsequently to be rescinded. In Germany the actual enforcement of the prohibition is attended with difficulty, for preserved vegetables containing copper are easily obtainable on the open market in spite of it. But it must be admitted that it is highly undesirable that a poisonous substance should be used in food even to the smallest extent, and the position of those members of the committee who have condemned absolutely the use of copper salts in preserved food is very strong. They maintain that serious and widespread mischief may result from the consumption of food and drink containing even minimal quantities of poisonous metallic substances, as in the case of arsenic in beer, so that it is desirable that such poisonous substances should be rigorously excluded.

Finally, we are in complete accord with the opinion that the departmental machinery for controlling the preparation and conservation of food and drink in this country is not as complete as could be wished, and we agree that the appointment of a court of reference is indicated, embracing at least a chemist, a bacteriologist, a pharmacologist, a physician, a physiologist, and a representative of the public health service. Failing the creation of such a court the committee consider that the Local Government Board should possess, and should be called upon to exercise, such powers as will enable them to schedule by order any preservative or colouring matter which after such inquiry and experiments as the department may deem fit may be regarded as likely to prove dangerous to the public health. We have urged again and again the desirability of a control of this kind being exercised.

The report reflects credit upon all concerned. It contains the results of a most exhaustive and painstaking inquiry in which the interests of the industries involved have been carefully studied, whilst the greatest regard has been paid to a much higher issue—the public health. We feel that the committee have adopted a very judicial and practically unassailable attitude.

The William Smyth Memorial Fund.

As we have already announced, a fund is being raised for the widow and eight children of Mr. WILLIAM SMYTH who sacrificed his life to save the lives of others on the coast of Donegal during the outbreak of typhus fever on Arranmore Island. He fought the epidemic on the island while he could, and then, having resolved to convey his patients from the hovels in which they lay to the isolation hospital on the mainland, found that he would have to encounter not only passive but active resistance from the friends or neighbours of those who lay ill. Active assistance he obtained only from Mr. MCCARTHY, medical inspector under the Local Government Board, and these two brave and determined men rowed a crazy boat, the only one they could get, across to the island, and under police protection placed the patients in it. No fisherman would help them and a boat-load of police officers to whom they appealed to tow them to the mainland refused all aid. At last, tired out by their exertions, they brought the sick persons whom they had rescued to a landing-place, whence an ambulance conveyed them to the hospital, but Mr. SMYTH has since fallen a victim to the infection from which he sought to save others and has died.

Of the honour which brave acts done for others' sake ever win among men Mr. MCCARTHY has earned his full share, and what he did will not, we hope, be forgotten; but we are concerned now with the welfare of the widow and children left behind by Mr. SMYTH. He, it will be remembered, bore the full brunt of the struggle. If he ever knew that he had accomplished the work that he set himself to do, he died without thought of the praise his deed would earn for his memory, but only with the consciousness that he was leaving those he loved to face the world before he had had time to make provision for them. In such cases as his, we may truly say, the act is performed as a matter of duty, with full knowledge of the risks involved, and is rarely heard of in the outer world unless a tragic termination or some chance incident calls public attention to it. It is none the less incumbent on us to recognise bravery and devotion to duty when they are brought to our notice and when the best method of recognition is simple and obvious.

The fund to which we call attention has been inaugurated by donations from the Presidents of the Royal College of Physicians of Ireland and the Royal College of Surgeons in Ireland, while letters of sympathy, accompanied by subscriptions, have been received from the Lord Lieutenant of Ireland, from the Duke of ABERCORN, Lord Lieutenant of the county of Donegal, and from Cardinal LOGUE, Archbishop of the Roman Catholic Church in Ireland. It is a fund, however, to which all may well be invited to contribute, whether their donations be large or small and whether they are given by those who sympathise with the fate of a brother member of the same

great profession or by those who only look on at the work done by the medical practitioner and realise in some measure the dangers which he encounters in his life's routine. Mr. SMYTH, we need hardly say, went beyond the beaten track in which the physician may at any time meet with, and succumb to, a deadly disease. He sought his patients where he could hope for no adequate reward and he imposed on himself in his endeavour to rescue them a task which he might have avoided without discredit—a task, moreover, which was well calculated to exhaust him and to enhance the danger of infection and its consequences.

Sometimes honour falls to such a man as he was in his lifetime. Members of the medical profession have lived to receive the reward of bravery, not only when, as recently in South Africa, they have gained distinctions by their self-sacrificing devotion on the battlefield and in hospitals crowded with the victims of a great war, but also when in the more peaceful pursuit of their practices they have performed actions which have been made known. Nevertheless, the greater number of the acts of courage and self-sacrifice that are performed by members of the medical profession must of necessity be done without expectation of fame and without hope of reward, save only of the reward which is found in the consciousness of good work done. Mr. SMYTH has not survived to enjoy even this, but it will be possible for those who live in the neighbourhood in which he worked and died, to do something to help those whom he left behind, knowing well that nothing can repair the loss which they have sustained. Those beyond that neighbourhood, whose attention we more particularly call to the fund that has been instituted, will contribute in gratitude for the good example set and in memory of a true medical hero.

The Election of Direct Representatives on the General Medical Council.

MR. GEORGE JACKSON and Mr. GEORGE BROWN have been elected Direct Representatives of the medical profession for England and Wales upon the General Medical Council—a result that had been very generally anticipated. Mr. GEORGE JACKSON, who is a new member, was "runner-up" at the last election, being defeated by Dr. J. G. GLOVER, whose vacancy, upon retirement, he now fills; while Mr. GEORGE BROWN has been re-elected for a second term of five years. We trust that these two gentlemen will endeavour efficiently to discharge the responsible duties that rest upon their shoulders. What is wanted, if the Direct Representatives are to be of sensible use to our profession, is united action; separate attempts to impress upon us that we have in our Direct Representatives stern and uncompromising reformers do not advance the general cause to an appreciable extent. Some difficulty about united action may have been created by the attitude of Mr. VICTOR HORSLEY who threw the whole of his influence upon Dr. S. WOODCOCK'S side in the recent election, attending meetings in that gentleman's behalf, and making vigorous and interesting, if not always judicious, speeches in his support. Mr. HORSLEY'S efforts have proved unsuccessful; while both Mr. JACKSON and Mr. BROWN, who stood for election on the same ticket, take their seats upon the Council with the feeling that the third Direct Representative for England and Wales opposed their return to the best of his ability. He wanted the seat of one of them for Dr. WOODCOCK. We trust that Mr. JACKSON and Mr. BROWN, having been victorious, will also be magnanimous. They must forget that they have recently had in Mr. HORSLEY a conscientious opponent at the hustings, and must remember that he is a brother reformer with whom it is absolutely necessary that they should coöperate cordially if their separate or united services are to be worth their full value to the constituency. The candidature of Dr. C. W. HAYWARD, who occupies the bottom place in the poll, introduces a new element into the election of Direct Representatives. He is, we understand, a homœopathic practitioner, so that his election would have been tantamount to a recognition by the medical profession that the imaginings of HAHNEMANN are legitimate scientific developments. Dr. HAYWARD'S success was never in question, but the position would have been comic, although most serious, had the General Council of Medical Education and Registration found in its body a gentleman whose convictions compelled him to view much of the accepted theory of medical science as incorrect. There are many directions in which reform is admittedly required in the medical profession—directions which we believe Dr. HAYWARD to realise every whit as fully as the other candidates—but the educational curriculum of the student does not need to include instruction in therapeutic heresy.

Annotations.

"Ne quid nimis."

UNEXPECTED DEATH WITHOUT OBVIOUS CAUSE.

INQUESTS are occasionally held in which the medical men who give evidence declare that they can assign no reason for the death, the post-mortem examination disclosing nothing to enlighten them. It is, of course, presumed that an analysis for poisons has been made, including a search for those that leave but little trace behind. It is well known, however, that cases do occur from time to time in which it is very difficult, if not impossible, to state what has been the cause of death. Some cases of this nature which have been recorded would probably have been explained if a more minute examination had been made. For instance, at an inquest held on the body of a child the medical practitioner who made the necropsy stated that he had made a careful examination of all the organs of the body (including the brain) but failed to find any morbid condition save slight congestion of the lungs. The coroner asked him whether he had examined the pharynx and larynx. The witness confessed that he had not, and on further examination a mass of bread was found occluding the opening into the larynx. The cause of death in those persons in whose bodies the most careful examination failed to detect disease has been assumed to be profound depression of the heart's action through nervous influences. Fright has frequently been known to cause death, or a blow on the epigastrium has brought about a fatal termination without leaving any

trace of injury either internal or external. In another class of case latent or undetected disease may be the cause of the cardiac failure. A patient may have suffered from an attack of diphtheria which had not been recognised, and during convalescence may die from syncope, in which case the true cause of death may be entirely overlooked. Still another series of cases is drawn attention to by Dr. Dixon Mann.[1] He there states that the bladder, urethra, and genitals are comprised among those parts of the body the abrupt handling or compression of which is attended with exceptional risk of sudden death from cardiac inhibition.

KENDAL AND ITS MEDICAL OFFICER OF HEALTH.

KENDAL has a town council and also a Health Committee appointed by that body. The chairman of the Health Committee is Councillor J. H. Braithwaite, and at a meeting of the town council held on Nov. 26th the Health Committee reported among other matters that the ambulance should be under the charge of the inspector of nuisances and that it should not be removed without his knowledge. We may as well say at once that this recommendation was after some discussion sent back to the Health Committee for further consideration. During the discussion, however, some curious statements were made. Mr. R. M. Craven, who is the medical officer of health and who was present at the meeting of the Health Committee when this recommendation was passed, wrote a letter to the town council mentioning that certificates of infectious disease were sent to him as medical officer of health and asking whether on receipt of a notification of a case of infectious disease he was at liberty forthwith to order the ambulance to convey the patient to the sanatorium, should he consider such removal necessary, or must he first obtain the consent of the inspector of nuisances to the use of the ambulance for such purposes. The mayor said that he supposed that the letter would have to be referred to the Health Committee but that in the meantime he would like to hear any comments which the chairman of that committee might like to make. Whereupon Mr. Councillor Braithwaite got up and characterised Mr. Craven's letter as "a piece of gross impertinence. It was nothing more or less than an attempt to go behind and to override the instructions of the Health Committee. It was one of those efforts of which they saw many before to assume an arrogant assumption of independent authority and action which had in times past caused so much difficulty, discomfort, and inconvenience in the whole of Mr. Craven's work with the corporation and its officers. It was a position of which he had already expressed an opinion, a position to which Mr. Craven had no right whatever, and one with which unfortunately, through his absolute lack of judgment, of tact, and of common sense, he was not even fit to be entrusted with ..... he was simply the servant of the corporation. ..... In regard to the rural cases Mr. Craven had been in the habit of telegraphing and telephoning and ordering the ambulance about at all sorts of inconvenient and unnecessary times. ..... There were many instances in which the unwarrantable and presumptuous interference of Mr. Craven must be stopped ....." and so on. "Mr. Craven must accept and obey." Afters these flowers of speech the orator sat down and was followed by Mr. Alderman Monkhouse who said that he thought Mr. Craven was perfectly right. He was right in calling attention to the matter, for there might be misunderstanding about the minute unless it was made more intelligible. Finally, as we have said, the minute was sent back. Mr. Craven has issued a special report wherein he states that, as a rule, the ambulance is ordered by the inspector of nuisances and has only been ordered about 20 times by himself, generally on Sundays, bank holidays, and Saturdays. He gives instances to prove this. With regard to Mr. Braithwaite's lucubrations, we have not much to say, but, as a rule, people who are so ready to talk about impertinence and unwarrantable and presumptuous interference will generally be found to be in the wrong. Mr. Craven may be the servant of the corporation. We take it Mr. Braithwaite and the whole council are but the servants of the ratepayers. There is no disgrace in service—it is an honourable position, though Mr. Braithwaite evidently thinks otherwise. It seems to us that a simple way out of the difficulty would be to word the minute after an amendment which was proposed by Mr. Alderman Monkhouse but withdrawn, to the effect that the ambulance should not be removed without notice being given to the inspector or left at his office. As a rule, of course, it would be the inspector's duty to visit the house where the case of infectious disease was and to arrange for removal if this was considered necessary by the practitioner in attendance and the medical officer of health. But in emergencies, such as the case quoted by Mr. Craven, it is ridiculous to have a hard-and-fast rule the strict keeping of which might entail much danger, to say nothing of expense.

THE DRUCE CASE.

THE action by which Mrs. Druce, a widow, sought to disestablish the will of her late father-in-law, Mr. T. C. Druce, and to establish the story that he survived his death in 1864 and remained alive as the fifth Duke of Portland until a much later period, has been heard and concluded. The surviving executor of Mr. T. C. Druce was able to prove his will "in solemn form," bringing conclusive evidence that he duly made it and that he beyond all question died at the date alleged. The defendant was fortunate in being able to prove with such abundant clearness the death in 1864 which was the point upon which the whole of Mrs. Druce's case turned. Both Dr. Edmund Shaw and Mr. William Blasson, who so long ago were in partnership at Edgware and Mill Hill and attended the deceased, are alive, and their memory of a case, which must have been of some importance in the early career of two young practitioners, was perfectly clear. The deceased died from gangrene and erysipelas following operations rendered necessary by a succession of abscesses in the rectum and performed by the late Sir William (then Mr.) Fergusson. Dr. Shaw, who gave his evidence on commission, had particularly good reason to remember the occasion, as, in addition to the other circumstances, he himself contracted blood-poisoning in dressing his patient's wounds, as also did one of the nurses. Dr. Shaw also helped to carry out his own directions rendered necessary by the condition of the body, a condition which accounted for burial taking place without delay. These included the saturation of a sheet with chloride of lime, in preparing which Dr. Shaw was assisted by a nurse-housekeeper of the deceased. This lady also survives and she went into the witness-box and gave her own account of incidents no doubt indelibly impressed upon her memory. Mr. Blasson, Dr. Shaw's partner, who was present at the operations and saw the deceased at a time when his recovery was hopeless, gave evidence before the jury, while the nature of the facts which have encouraged Mrs. Druce in her persistent, and no doubt genuine, belief in the singular story which she has woven round her dead father-in-law is well exemplified in some of the questions which she put to Mr. Blasson in cross-examination. She dwelt, for example, with emphasis, as if it was a circumstance fraught with dire suspicion, on his having no books containing records of the case in question, receiving

[1] THE LANCET, June 26th, 1897, p. 1730.

naturally replies to the effect that he had no reason to keep books relating to his patients of nearly 40 years since in a practice at a place which he had quitted 10 years ago. Again she laid considerable stress upon the fact that the certificate of Mr. Druce's death did not bear the signature of Dr. Shaw, Mr. Blasson, or any other medical man, asking whether in this respect it was not a unique document. The answer to this was given by another witness and by counsel, who pointed out that the signature of a medical practitioner who has attended the deceased has only been necessary since the Registration of Births and Deaths Act of 1874, so that in cases of registration at the period when Mr. Druce died no such signature is to be expected. We need not comment on the plaintiff's further allegation that one of the witnesses to Mr. T. C. Druce's will, then an elderly partner in a firm of solicitors, is not dead, but, having been for some years employed as a stoker in the underground labyrinths of Welbeck Abbey, is now keeping a lodging-house in London! It is certain that whatever defects may exist in our system of death registration, or existed in it before 1874, the decease of the late Mr. T. C. Druce has been proved with a singular conclusiveness that must be convincing to all but Mrs. Druce herself.

THE METROPOLITAN WATER-SUPPLY.

THE report on the condition of the metropolitan water-supply during the month of October has recently been issued by the Water Examiner appointed by the Local Government Board. The Thames water at Hampton, Molesey, and Sunbury was in good condition during the whole of the month. The height of the river varied from a point two inches above to one nine inches below the average summer level. The average daily supply derived from the Thames was 128,511,523 gallons, from the Lee 34,635,700 gallons, and from "springs" and wells 50,612,198 gallons. "Springs" and wells are mentioned in the report every month. There are springs at Hampstead and Highgate which to some extent supply the ponds the water of which is distributed by the New River Company for non-domestic purposes to the average daily amount of 68,839 gallons. These springs are obviously not included in the estimate of the water derived from "springs" and wells which is used for domestic purposes. We are certainly under the impression that the spring at Chadwell is the only one which at the present time yields water which is used by a metropolitan water company. More than one spring possibly opens into the Chadwell basin. The daily average amount of water used during the month was 213,828,330 gallons, which represents a daily average of 33·99 gallons per head for a population estimated at 6,290,974. The amount used per head daily during the month, except in the case of the customers of the West Middlesex Company, was less than that used in the corresponding month of last year. The total number of supplies furnished by the water companies during the month was estimated at 935,133 and this shows a daily average of 229 gallons for each such supply. The companies which are now credited with giving a constant supply to all their customers are the Chelsea, the East London, the Grand Junction, and the West Middlesex. The Lambeth Company do not profess to give constant service to more than 77·3 per cent. of their clients. A very slight improvement only has taken place in this respect during the last year. In October, 1900, the proportion of constant supplies was 75·6 per cent. The water rents which this company are allowed to charge are very high and the people who have the misfortune to live within the area of their supply are not well treated. The inconveniences attending an intermittent supply are well known and need not be here insisted upon, but the company give also other grounds for complaint. During the month of October "the water of the Lambeth and East London Companies exhibited the deepest average tint of brown," or in popular parlance was the "dirtiest water." The Water Examiner also says that according to the statements of the chemists who report on behalf of the companies "the water of the Lambeth Company showed the highest average amount of organic carbon." The East London Company during the month obtained a supplementary supply from the Southwark and Vauxhall Company. The amount so obtained if spread over the whole of the month was equivalent to an average daily supply of 7,120,677 gallons. The Battersea station of the Southwark and Vauxhall Company is, of course, still in use. The results of a daily examination of the water distributed from Battersea might prove of interest. Dr. T. E. Thorpe, F.R.S., the analyst appointed by the Local Government Board, gives as a result of his examination of samples collected on Oct. 7th the information that as regards organic impurity the waters supplied should, judged from one single analysis of each, be placed in order of merit as follows: New River, Kent, Chelsea, Southwark, Grand Junction, Lambeth, West Middlesex, and East London. Dr. Thorpe speaks of the supplies given by the New River and by the East London companies as Lee-derived waters, and although the matter is not one of paramount importance it seems unnecessary to perpetuate an erroneous nomenclature. During the month of October considerably less than half of the water distributed by the East London Company was derived from the Lee. The amount obtained from the various sources gave the following daily average:—From the Lee and storage, 12,398,000 gallons; from the Thames, 16,058,000; from wells, 12,000,000; from Hanworth "springs," 1,595,000. The fact that the New River water is very largely derived from wells has been recently pointed out in THE LANCET. It does not appear from the report by whom the selection is made of the samples of water which are analysed by Dr. Thorpe. We do not remember to have seen an analysis of either (1) the water supplied from the East London Thames station during a period in which the river was in flood, or of (2) the water supplied from the Grand Junction Hampton station—that is to say, the local supply which is pumped directly to the neighbourhood.

THE CAUSATION OF CANCER.

IN THE LANCET of Dec. 7th (p. 1578) we published a paper entitled "Excess of Salt in the Diet a Probable Factor in the Causation of Cancer," by Dr. James Braithwaite. Dr. Braithwaite candidly admits that he has not produced absolutely conclusive proof of it, but merely offers the suggestion that salt is the essential factor in the etiology of cancer. His strongest argument is that malignant disease is unduly prevalent at Malton and Pickering, where the main articles of food would appear to be beef and bacon, a diet containing an excess of salt. An argument of this nature, however, would require considerable support before it would have any weight. A similar course of reasoning has been followed with regard to other conditions (e.g., anæmia) without success. The main point raised by Dr. Braithwaite, however, is that cancer is extremely rare amongst the Jews, and he offers the suggestion that this is to be explained by the fact that the Jews take less meat (beef) than the Gentiles and entirely refrain from bacon and ham, and consequently consume less salt. We believe, however, that a more systematic and widespread inquiry would show that cancer is not so uncommon amongst women and men of Jewish birth as has hitherto been supposed. Inquiries which we have ourselves made support this contention. Some years ago a similar view was held with regard to pulmonary tuberculosis, but all physicians attached to the special chest

hospitals, especially those in the East-end of London, would be able to bear witness to having met with many cases of that disease in the numerous Jewish patients attending the out-patient departments. Dr. Braithwaite's contention, however, may be of value as suggesting inquiries by other observers as to proof or otherwise of his theory. In a letter which we publish in another column Dr. Tucker Wise makes statements supporting Dr. Braithwaite's theory.

OBJECTIONABLE ADVERTISEMENTS.

WE called attention in an annotation last week to certain disgusting advertisements appearing in *Leach's Family Dressmaker* and *Leach's Children's and Young Ladies' Dressmaker*. In doing so we pointed out that respectable firms should not allow their advertisements to appear in juxtaposition to filthy invitations to buy vaginal douches, contraceptive powders, rubber preventives, and emollients specially prepared for the anointment of the same. We are glad to learn that Messrs. Allen and Hanbury immediately withdrew their advertisement from *Leach's Children's and Young Ladies' Dressmaker*. This is exactly the course we should have expected from a firm of their high position, and we trust that their action will lead to imitators. Whenever a firm of repute and position finds that advertisement columns which they use are being prostituted the firm should withdraw its support from the paper. In this way the fact will be brought home to editors and proprietors of newspapers who are careless of public morality that dirty money gained means clean money lost. Then reform of the advertisement columns will follow. We commend the promptitude of Messrs. Allen and Hanbury to the notice of others.

AUTO-INTOXICATION AS A CAUSE OF GENERAL PARALYSIS.

DR. JOHN MACPHERSON, Commissioner in Lunacy for Scotland, contributes a brief critical article to the December number of the *Edinburgh Medical Journal* dealing with the subject of auto-intoxication as a cause of general paralysis, which opportunely indicates the present stage of the question. The thesis that syphilis precedes in the great majority of cases the appearance of symptoms of general paralysis is accepted as substantially correct and it is pointed out that the course of general paralysis itself is marked by the recurrence of febrile attacks "during which there is reason to believe that hyperleucocytosis occurs." The febrile reaction and the leucocytosis are regarded as pointing conclusively to a toxic infection of the system. The remittent character of the fever shows either that the toxin is regularly discharged from the system or that the body acquires periodical immunity from its influence. The occurrence of gastro-intestinal disturbances in the course of the disease is due to the fact that lesions are developing in the mucous membranes of the intestines such as have been pointed out by various observers. The view that these lesions are trophic and secondary to changes in the nervous system is regarded by Dr. Macpherson as being untenable. The symptoms of vaso-motor disturbance and sudden losses of nervous function which are characteristic of the early stages indicate also the probable action of a toxic agent, and there is every indication that such toxæmia arises from the alimentary canal and is, in fact, a form of auto-intoxication. Reference is made to the clinical observations of Dr. Lewis Bruce of Perth on general paralytics as regards the temperature changes and leucocytosis and to the occurrence of lesions (inflammatory and necrotic) in the mucous membranes of the intestines described by Dr. W. Ford Robertson of Edinburgh, and it is argued that a parallelism might be observed between auto-intoxication on the one hand and the fever and degree of leucocytosis on the other. The auto-intoxication might be due to a virulent activity of the bacillus coli communis or other intestinal microbes the rôle of which demanded further investigation.

THE NOBEL PRIZES.

THE late Mr. Alfred Nobel, who, as is well known, was the inventor of dynamite and thereby realised a large fortune, bequeathed by his will certain sums of money to provide a fund out of which should be paid prizes to persons who might be considered most eminent in various branches of science or in the cause of peace. The award for 1901 was declared on Dec. 10th. The Peace prize, value 150,000 kronen, was divided equally between M. Henri Dunant and M. Frederic Passy. M. Dunant, as our readers may know, was the founder of the International Red Cross Society. Some years ago it was reported that he was in rather reduced circumstances, so that the sum awarded to him is not only a slight recognition of his labours for the good of his fellow-creatures but will help to make his declining days pass more pleasantly. Other prizes of the value of 200,000 kronen respectively were awarded to Dr. Emil Behring of Halle for medicine, mainly, we take it, on account of his work as regards diphtheria; to Professor Jakobus van't Hoff of Berlin, for chemistry, who is so well known for his researches into the process of solution; and to Professor Wilhelm Roentgen of Munich for physics. In literature M. Sully Prudhomme was adjudged the winner.

ARTERIO-SCLEROSIS AND BRAIN DISEASE.

AN important discussion on Arterio-sclerosis and Brain Disease, which took place at the recent annual meeting of the New York Medical Association held at the New York Academy of Medicine, is reported in the *Medical News* of Nov. 2nd, 1901. In introducing the discussion Dr. Charles E. Nammack of New York said that the causes of arterio-sclerosis were, in addition to the acute infectious diseases, certain chronic intoxications such as are produced by gout, lead-poisoning, alcohol, or syphilis. The initial period of the disease was marked by a contraction of the peripheral blood-vessels. Without this arterial degeneration did not develop. Over-feeding was a frequent cause of arterio-sclerosis, and worry and cerebral overstrain tended to premature sclerosis of the cerebral arteries. Physicians were especially prone to suffer from cerebral overstrain and arterio-sclerosis. The death-rate among practitioners in New York was only surpassed by that among saloon-keepers, butchers, quarrymen, and factory operatives. Medical men died particularly from three diseases connected with arterial degeneration—Bright's disease, cardiac disease, and cerebral apoplexy. Among the early symptoms of arterio-sclerosis were distress in the region of the heart, sudden disinclination for work, and headaches of sudden onset. Cessation from work, abstemious diet, giving up alcohol, and the adoption of quiet open-air occupation were the therapeutic indications. Dr. Delancey Rochester pointed out that the fibroid changes in the arteries obstructed the freedom of outflow of the blood, and the extra work thus thrown on the heart tended to bring about hypertrophy and fatty degeneration of the myocardium. The involvement of the coronary arteries led to attacks of angina pectoris. Epigastric pain was one of the early symptoms present in cases of arterio-sclerosis, and this led to the diagnosis of gastritis when the real condition was vascular degeneration. He preferred to use cactus and valerian in treatment, avoiding the use of digitalis, which was a dangerous drug in arterio-sclerosis. The diet must be carefully regulated and when heart-compensation was failing the patient must be put to bed. In the latter case the use of passive and resisted movements as employed by Schott at Nauheim

was of great importance and the best cardiac tonic was strychnine. Dr. E. Lefevre contended that the conditions that developed with cardio-vascular degeneration and renal cirrhosis were evidently to be classed together, the most important factor being a hereditary predisposition to early degeneration of the arteries. On the basis of predisposition chronic poisons, such as alcohol, lead, and syphilis operated as factors of exceptional potency.

MEDICAL APPOINTMENTS TO THE PRINCE OF WALES'S HOUSEHOLD.

His Royal Highness the Prince of Wales has been pleased to make the following medical appointments to His Royal Highness's Household:—Physicians-in-Ordinary: Sir William H. Broadbent, Bart., K.C.V.O., M.D.; Sir James Reid, Bart., G.C.V.O., K.C.B., M.D.; and Sir Francis H. Laking, K.C.V.O., M.D. Surgeons-in-Ordinary: Sir Frederick Treves, K.C.V.O., C.B., F.R.C.S., and Mr Herbert W. Allingham, F.R.C.S. Honorary Physicians: Dr. Robert W. Burnet and Dr. Samuel J. Gee. Surgeon Apothecary to His Royal Highness's Household-in-Ordinary: Sir Francis H. Laking, K.C.V.O., M.D. Surgeon Apothecary to His Royal Highness the Prince of Wales and to the Household at Sandringham: Dr. Alan R. Manby, M.V.O. Chemist and Druggist: Mr. Peter Wyatt Squire.

THE FUNERAL OF SIR WILLIAM MACCORMAC.

THE funeral of the late Sir William Mac Cormac was held on Dec. 9th, the first part of the Office being sung at the Church of St. Peter, Vere-street, W., the Rev. Canon Page Roberts being the officiant. The body arrived at the church at 11 A.M. and the hearse containing it was followed by the mourning-coaches in which were Lady Mac Cormac, Miss Mac Cormac, Mr. Henry Mac Cormac, Mr. J. Mac Cormac, and the other chief mourners. At the church General Sir Andrew Clark represented the King, representatives of the French and German Embassies, with the French Consul-General being also present. The Royal College of Surgeons of England were represented by Mr. Henry G. Howse (President), Mr. Thomas Bryant, Mr. Henry T. Butlin, Mr. W. Watson Cheyne, Mr. Reginald Harrison, Mr. John Langton, and Mr. Alfred Willett, and Professor Charles Stewart, the Conservator of the Hunterian Museum, was also present. The Royal College of Physicians of London were represented by Sir William Selby Church (President), Sir Dyce Duckworth (treasurer), and Dr. Edward Liveing (registrar). Dr. Hector Mackenzie represented the physicians on the staff of St. Thomas's Hospital, and most of the surgeons on the staff were present, including Mr. Henry H. Clutton, Mr. Bernard Pitts, Mr. George Henry Makins, Mr. William Henry Battle, Mr. Charles A. Ballance, Mr. Francis C. Abbott, and Mr. Cuthbert S. Wallace, while the matron and the assistant matron represented the nursing staff. The French Hospital also sent a deputation, while the Army Medical Department was represented by Surgeon-General Henry Skey Muir, C.B. Various other institutions and departments were represented, such as the Navy Medical Service, the Italian Hospital, the University of London, the Irish Medical Schools and Graduates' Association, and the Leathersellers Company. The British Red Cross Society were represented by Lord Lister, Viscount Duncannon, and Viscount Knutsford. Among friends were Sir John Furley and Lady Furley, Sir William H. Broadbent, Sir Samuel Wilks, Sir John Williams, Mr. Walter Tyrrell, Mr. Alfred D. Fripp, and many others. A very large number of wreaths had been sent by various societies and friends. The first part of the Order for the Burial of the Dead having been sung in the church, the body was replaced in the hearse and taken to Kensal Green for interment, where the prayers of committal were said by Canon Page Roberts. The coffin bore the inscription: "William Mac Cormac, born Jan. 17th, 1836; died Dec. 4th, 1901."

THE TUBE PROBLEM.

AT a meeting at the Auctioneers' Institute on Dec. 4th Mr. S. M. Freeman, K.C., read a paper upon the Tube Problem, which possessed many points of interest to medical men, whether citizens of London or not. For electric underground traction is likely to play a part in urban development everywhere. Mr. Freeman pointed out that the legal position of freeholders within 100 yards of any line of tubes should be placed upon a more certain foundation than at present existed, also the right to compensation for damage to property by owners within the same area should be secured, whether from the construction or working of the line. His declaration that the assurances given that no possible damage would be caused by the construction of the Tube Railway had not been realised will be fully endorsed by most of the occupants of five miles of houses along the line of route. In the discussion which followed the usual references were made to the immunity from trouble enjoyed by the South London line. Without attempting to offer any opinion as to the cause of the vibration, which it is evident the able men responsible for the planning of the line were unable to foresee or avoid, we may venture the suggestion that the two lines are not comparable. In the case of the South London line, which we believe is laid much nearer to the surface than is the case with the Central London Railway, the waves of vibration would radiate to the surface within a very limited area, probably exceeded by the width of the roadway. Again, no comparison is possible between the damage to property caused in the construction of the two lines in view of great difference in the physical features of the districts through which they pass. As pointed out at some length in an article which we printed in our issue of May 12th, 1900, on the construction of the Central London Railway, the alteration in the level of the subsoil water following the course of the tube is one of the principal causes of all the damage done to property along its course. For this reason any line running east and west, as is the case with the Central London Railway, would cut across the natural drainage subsoil water flowing to the Thames—which a railway running north and south like the South London line would probably avoid. In the case of the Central London Railway it was maintained that no water could come externally in contact with the tube, but this, like some other rash statements made in connexion with the undertaking, is disproved by the liberal use of sawdust on some of the stairways and stations for the purpose of absorbing the water that soaks through. We are far from being oblivious to the great advantage that tube railways are likely to prove to the travelling public, but while matters are more or less in the experimental stage it would be disastrous if London were "rushed" by company promoters without very deliberate consideration on the part of the responsible authorities. The suggested scheme for shallow underground tramways proposed by the London County Council is free from many of the objections inseparable from lines laid at a great depth. The great advantage which the former possess of providing a chamber giving ready access to the maze of pipes, cables, and sewers with which every large town is provided and thereby obviating the necessity for opening the roadway to correct every small defect is one not to be lost sight of. It is also probable that the difficulty of vibration experienced in the case of the Central London Railway would in the case of light tramways be overcome, but of course this remains to be proved. From

a medical point of view this question of vibration is so important, the suffering to invalids and to persons confined to their houses being so real under the constant little jars and disturbances, that the medical profession may be depended upon, whenever a tube scheme is under consideration, to use their influence in compelling the promoters to take all possible precautions.

THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Dec. 4th states that for the week ending Nov. 30th the cases of plague in the Cape Peninsula numbered 0. At Port Elizabeth the cases were as follows: Europeans, 1; coloured persons, 1; all other places, 0. There were no deaths from plague anywhere in the colony. The cases of plague in persons under naval and military control numbered 0. 5 cases of plague have been discovered at Mossel Bay during the week, but owing to absence of particulars of age and sex they have not been included in the above return. Of these 5 cases of plague 3 proved fatal. As regards Egypt, during the week ending Dec. 1st 2 cases of plague and 3 deaths from the disease have been reported throughout Egypt; these cases and deaths all occurred among natives at Zifteh. During the week ending Nov. 24th a man was found dead out of hospital at Zifteh, and on examination he was found to have died from pneumonic plague. A few days afterwards his wife, and subsequently his mother-in-law, were taken ill and eventually both died from pneumonic plague. These 2 women had nursed the man during his illness. As regards the Mauritius, a telegram from the Governor received at the Colonial Office on Dec. 6th states that for the week ending Dec. 5th there were 52 cases of plague, of which 37 were fatal.

CELEBRATION OF VIRCHOW'S BIRTHDAY IN BRAZIL.

PROFESSOR VIRCHOW'S eightieth birthday was celebrated with much enthusiasm in the important maritime city of Bahia in Brazil. In honour of the occasion a very numerously attended public meeting was held on Oct. 13th, the company present including the Governor of the State, the President of the Municipal Council, the German Consul, and the Director of the Schools of Medicine, Jurisprudence, and Engineering. The arrangements were made by the Gremio dos Internos dos Hospitaes da Bahia, an association of the internes of the hospitals, and the meeting took place in the handsomely decorated hall of the Gremio Literario. M. Pontes, the president of the association, opened the proceedings with an address, after which the Governor of the State took the chair. Professor Juliano Moreira, speaking in the double capacity of a member of the medical profession and one of the editorial staff of the *Gazeta Medica* of Bahia, gave a comprehensive review of Professor Virchow's achievements, not only as a physician and a pathologist, but also as a biologist and as a *savant* whose methods of research had influenced every branch of human knowledge. He concluded by reading aloud a Latin address to Professor Virchow written on parchment for the purpose of being sent to him. M. Paranhos, speaking in the name of the *Revista do Gremio*, gave a sketch of the vast amount of work which Professor Virchow had contrived to crowd into the space of 60 years. Addresses were also delivered by M. Oscar Freire, representing the Gremio dos Internos, and by Dr. Egas Moniz, speaking in the name of the Gremio Literario and of a number of German journals of Paraná and Rio Grande do Sul. Poems in honour of Germany and Professor Virchow were recited by the last-named gentleman and by M. Damasceno Vietra, after which the national airs of Germany and Brazil were played by the band. The October issue of the *Gazeta Medica* of Bahia, the *doyen* of the medical press of North Brazil, is entirely a "Virchow number," in which the life and work of the venerable *savant* are treated in six elaborate articles by Professor Juliano Moreira, Dr. Alfredo de Andrade, Professor Pacifico Pereira, Dr. Americo Fróes, Professor Matheus dos Santos, and Dr. Afranio Peixoto. The *Revista do Gremio dos Internos dos Hospitaes* has also published a special Virchow number.

MEDICO-LEGAL SOCIETY.

AT a meeting held at 20, Hanover-square, W., on Dec. 5th it was unanimously resolved to form a medico-legal society. Dr. F. J. Smith, who presided, explained how the meeting came to be held and the objects aimed at in proposing the society, which would, no doubt, be an advantage to medical men and lawyers by extending consideration to every question involving medical and legal matters. He also read letters from Dr. Harvey Littlejohn, Dr. Wynn Westcott, and others supporting the movement. On the motion of Dr. W. R. Smith, seconded by Dr. R. L. Guthrie, a committee was appointed to draw up a set of rules, to arrange for the next meeting, and to enlist members. Those who are willing to join the society are invited to send their names to Mr. McCallin, Reading Rooms, Inner Temple.

THE SMOKE NUISANCE.

AS everyone knows, fogs are inevitable owing to climatic conditions, but London fog is rendered direful by the amount of smoke—i.e., the products of the imperfect combustion of coals—which it contains. The dirty portion of these fogs consists of soot and various tarry matters and the irritating portion of sulphuric and sulphurous acids. All these nuisances were well exemplified in the fog which hung over the Thames valley on Nov. 16th. The Public Health Acts only deal with black smoke emitted from chimneys other than those of private houses, and even when the owners of such chimneys are summoned the regrettable laxity of magistrates very often permits them to escape either scot-free or else upon payment of a most inadequate fine. However, the action of the Coal Smoke Abatement Society and perhaps our own oft-repeated protests have certainly done something to improve the conditions of factory chimneys. As we have said over and over again, no silly excuse with regard to the difficulty of getting Welsh coal should be allowed to weigh for one minute. It is quite easy to arrange a factory furnace so that it can burn bituminous coal and yet cause no foul smoke. Witness the case of Nottingham, where manufacturers found it better for their pockets that their chimneys should be smokeless. But the great offenders in the matter of emitting dirty smoke are undoubtedly the chimneys of private houses. We will not consider the question of stoves, for though they would undoubtedly cure the evil yet we confess, in company with most of our fellow-countrymen, to a general preference for an open grate. There are, however, two simple methods of having a smokeless fire—or rather a fire emitting clean smoke—in an open grate. The one is to burn coke and the other is to burn anthracite. At the recent Congress of the Royal Institute of Public Health held at Eastbourne Sir C. A. Cookson, K.C.M.G., read a most interesting paper entitled "A Smokeless London." In it he advocated very strongly the claims of one of the two methods which we have mentioned above. He has made a personal trial of burning either coke or anthracite in an ordinary grate during two successive winters and finds that by the simple expedient of having a Bunsen burner underneath the grate the fire can be easily and cheaply lighted or relighted even at the present price of gas. Such a fire is bright and cheerful. The only objection which we can see to the adoption of this method is that at present there is not enough of anthracite or of coke on the market to supply a general demand for either,

but probably this difficulty could be overcome. A beginning might be made with the domestic kitchen, and another point to which the direction of the London County Council might well be directed is the case of the numerous new houses and flats which are constantly arising. No grate of any kind should be allowed in them which is not constructed so as to burn either coke or anthracite. We do not ask the average householder to consider matters of health, for the average householder does not care two straws about anybody's health except his own, but we do ask him to consider how much he would save in paint and in bills for cleaning if the atmosphere in which he lived were more like that of a small Italian town instead of being like the fumes from Tophet. Sir Charles Cookson's suggestion seems to us to be practical and might well be tried.

THE WORKING OF THE INEBRIATES ACT.

AN important paper on the Working of the Inebriates Act is contributed by Mr. John Carswell of Glasgow to the October number of the *Journal of Mental Science*. The Inebriates Act as passed was an attempt on the part of the Legislature to provide for the control of persons who were, in Mr. Carswell's opinion, "adjudged to be criminal, who were yet not to be punished for crime but treated for disease." But the class of offences scheduled in the Act, four convictions for which might bring a person within the scope of the Act if he were also a habitual drunkard, limited its operation practically "to the street pest, drunken prostitute, and thief, and the drunken flotsam and jetsam of our towns." The expectations of the Government were high-pitched, especially as regards inebriety in Scotland, but the operation of the Act had not justified such expectations. Thus, in Glasgow the number of persons convicted three times and over for offences under the Act for the year ending June 30th, 1901, was: males, 41; females, 139; total, 180, of whom 26 were over 50 years of age. In London the number of similar convictions at the police-courts was: males, 161; females, 258; total 419. The London County Council and the Glasgow Corporation were, as far as Mr. Carswell knew, the only two municipal bodies which had directly undertaken the work of establishing and maintaining reformatories under the Act. The London County Council scheme comprised provision at Farmfield, near Horley (Surrey), for 33 females, provision for Roman Catholic women at St. Joseph's, Ashford (Middlesex), and an arrangement with Lady Henry Somerset for the reception of a few female inebriates at Duxhurst, Surrey. This last arrangement was about to cease, but the Council had in hand the erection of further buildings at Horley for 80 female patients to replace the present accommodation. The number of persons under the care of the London County Council in July, 1901, was 108, all females, and at Brentry Homes, Bristol, there were 25 males and 125 females, making a total for England of 258. These, with a few additional patients in Duxhurst and a few who had been under care and discharged, brought up the total for England to nearly 300 persons committed under the Act, almost all females. In the Glasgow Corporation home there were 16 female patients. These figures referred only to persons committed under the Act, and took no account of voluntary residents in retreats or other institutions. A State reformatory had been set up in Scotland, but so far there had been no committals. Of the 16 female patients at the Glasgow home all had been more than once in prison and nearly all in poor-houses. They had all lived loose lives, many of them were prostitutes, and several had had syphilis. "With perhaps two exceptions out of the 16 they were all living loose, degraded, idle, and abandoned lives, and drunkenness only played a part in the general degradation." Such patients had not only to be cured of their degraded habits but would have to be placed on their discharge in fresh social surroundings to expect any good results—a very difficult matter to accomplish. Habitual criminals, vagrants, and prostitutes were generally of intemperate habits, and these were the persons who fell most readily into the meshes of the Act. There was a widespread disappointment that the Act did not deal with the non-criminal and non-vagrant inebriate—the class that called most urgently for treatment. A satisfactory Inebriates Act ought to embrace provision for three distinct classes of persons who were sources of danger and expense to society—viz., first, vagrants, paupers, and prostitutes; secondly, inebriates convicted of offences but not belonging to the first-named class; and, thirdly, inebriates of the non-criminal class; and it was to be hoped that further legislation would follow.

THE SITUATION AT THE MACCLESFIELD INFIRMARY.

THE honorary consulting physicians and surgeons of the Macclesfield Infirmary having met the governors of the institution at a private conference upon the situation have supported their professional colleagues, and as a result, the governors have decided to fall in, upon all essential points, with the views of their honorary medical staff; the junior house surgeon, however, who was elected by the governors in opposition to the wishes of the honorary medical staff, who did not consider that the post was one which a woman could fill either conveniently or adequately, has refused to resign her position. At a meeting of the governors held on Wednesday last the following resolution was passed:—

"That the honorary medical staff be asked to withdraw their resignations and that Miss Clarke be released from her promise to stay 12 months."

The resolution, as we read it, simply places the matter *in statu quo*, for the honorary medical staff certainly cannot give way.

"THE ADVANTAGES OF A TRACE OF ALBUMIN AND A FEW TUBE CASTS IN THE URINE OF CERTAIN MEN ABOVE 50 YEARS OF AGE."

UNDER this paradoxical title Professor William Osler has contributed a valuable article to the *New York Medical Journal* of Nov. 23rd. The successful business man, who lives intensely, strives hard for wealth, takes plenty of good food three times a day, with two or three glasses of spirits, and smokes from six to ten cigars, works in blissful ignorance that his bodily mechanism is in some respects similar to that of the steam-engine. His supply of "fuel" is out of proportion to the "energy" liberated. "Careless stoking" with high pressure for 25 years means early degenerations, and "the waste-pipes"—the kidneys—are often the first to show signs of ill-usage. He receives a rude shock when his insurance company declines to allow him to increase the amount of his life policy because of a "slight trace of albumin and a few tube casts in the urine." However, if at 50 he follows good advice, restricts his diet, gives up alcohol, and resigns his position on six or eight boards, the discovery of the albuminuria will be a great benefit. Professor Osler refers to the case of a distinguished public man in Canada in whose urine albumin and casts were accidentally discovered. He was nearly 60 years of age, lived a very active life, and was careless in eating and drinking. A consultation was held with the late Sir Andrew Clark who took a sombre view of the case. After a year's rest the patient resumed work. He is now a vigorous nonagenarian. Professor Osler points out that in men in the fifth and sixth decades albuminuria is by no means infrequent and not always serious. It is probably the expression of pre-senile changes in the kidneys, the result of arterial degeneration (the "renal inadequacy" of Sir Andrew Clark). The albuminuria and the number

and variety of the casts are not of as much importance in prognosis as are other factors. The facts indicative of serious disease are: (1) persistent low specific gravity of the urine (1008 to 1012); (2) marked arterial sclerosis with the apex beat an inch or two outside the nipple line and a ringing accentuated aortic second sound; and (3) albuminuric retinitis. A trace of albuminuria and a few casts are the danger signals. Professor Osler quotes approvingly Aphorism 13 of George Cheyne's "Essay on Regimen." "Every wise man after 50 ought to begin to lessen at least the quantity of his aliment; and if he would continue free of great and dangerous distempers and preserve his senses and faculties to the last he ought every seven years to go on abating gradually and sensibly and at last descend out of life as he ascended into it, even into the child's diet." Very similar advice is given by Sir Henry Thompson in his work on diet, the second edition of which we recently reviewed,[1] and the author in his own person bears eloquent testimony to the value of moderation in diet.

SYMMETRICAL GANGRENE FOLLOWING PNEUMONIA.

AT the meeting of the Société Médicale des Hôpitaux of Paris on Oct. 18th Dr. Henri Dufour described a case of this very rare complication of pneumonia. A woman, aged 58 years, had double pneumonia. Some days after recovery there was generalised polymorphous erythema. Then gangrenous patches appeared on the fingers, the toes, the tip of the nose, and the lobules of the ears. There was no precedent "local syncope or asphyxia," but almost from the first vesicles filled with turbid fluid appeared. Suppuration followed. The patient had much albuminuria and died from purulent infection. At no period did pulsation cease in the peripheral arteries. Bacteriological examination of the blood during life was negative. At the necropsy the lungs and heart were found to be healthy. There was pus in the left knee-joint. The peripheral nerves were found to be normal. Portions of the integument of the most affected finger—the left index—were removed and examined. The tissue was crowded with leucocytes. The arterioles of the preparation were not obliterated, but the venules were in a state of phlebitis. Dr. Dufour's explanation of the gangrene is that it resulted from the action of toxins on the cells of the peripheral parts, which were the most vulnerable in consequence of the circulatory difficulty at the greatest distance from the heart. Whenever the circulation is embarrassed the extremities are in danger of gangrene, as is shown by the cases of pericarditis reported by M. Widal in which "local asphyxia" occurred. The vulnerability of the most peripheral parts has been shown experimentally by M. Phisalix. On placing a microbial culture contained in a collodion capsule in the peritoneal cavity of a guinea-pig he found that symmetrical gangrene of the extremities (including the nose and ears) was produced. In the discussion which followed M. Widal pointed out that symmetrical gangrene of the extremities might occur independently of Raynaud's disease and might result from various pathological states. He referred to a case which he reported at the last International Medical Congress in which symmetrical gangrene followed suppurative pericarditis with great effusion. This point requires to be emphasised, for some English writers seem to regard the term "symmetrical gangrene" as synonymous with "Raynaud's disease." Now Raynaud's disease is essentially a vaso-motor affection of persons whose peripheral circulation is unduly susceptible to cold. In its typical form the fingers and other peripheral parts become first pale (local syncope) and then blue (local asphyxia), and in severe cases gangrene may follow. Symmetrical gangrene is thus simply a result of Raynaud's disease. But as in the cases of Dr. Dufour and M. Widal related above symmetrical gangrene may occur quite independently of Raynaud's disease.

[1] THE LANCET, Nov. 30th, 1901, p. 1502.

SMALL-POX IN LONDON.

THE latest returns show a decrease in the number of cases of small-pox as compared with those of last week. Thus on Saturday, Dec. 7th, there were 19 fresh cases notified and removed; on Sunday, Dec. 8th, the number was 11; on Monday, Dec. 9th, there were 18 fresh cases; on Tuesday, Dec. 10th, there were 9 fresh cases; and on Wednesday, Dec. 11th, there were 15 fresh cases.

RATS AND PLAGUE.

THE decision of the Turkish Government to require a "certificate of rat-destruction" before any vessel arriving at Constantinople from an infected port is allowed to discharge, as noted in the *Board of Trade Journal* of Nov. 21st, is a distinct advance in preventive medicine, and is rightly based, as Professor Koch has well pointed out that such measures should be, upon recently acquired knowledge as to the causation of the disease. Reliance upon certificates, however, is not to be absolute, and vessels from infected places, though permitted to operate in the port, are not allowed alongside the quays, while vessels not provided with certificates have to go to a lazaret to discharge, as "rat-destruction" can only be properly secured in an empty ship. The Order in Council for Western Australia of April 3rd is equally stringent. Section 10 prescribes that all rats on ships coming from any place or country where bubonic plague is known *or suspected* to exist shall be immediately destroyed; that all rats in every store, warehouse, or other building under the control of the railway, customs, and harbours department at the ports of the colony shall be destroyed; that complete precautions shall be taken to prevent rats coming ashore from any ship in any port of the colony; and that the local boards of health at all the ports and towns of the colony shall take the necessary steps to have the rats in such ports and towns destroyed. The wise precautions of Australia, as those of Turkey would seem to be, were prompted by actual experience, but Europe, though for the most part at present free from plague, might profitably adopt in advance for international protection those measures which the unfortunate experience of these two countries has shown to be essential. The policy of "rat-destruction" on all trading vessels has been found simple of attainment in Australia, and if adopted by every nation need cause little or no interference with trade, for when owners once recognised its necessity they would readily arrange for the destruction of rats by fumigation at the end of each voyage.

A COMPLIMENTARY dinner is to be given to-night, Saturday, Dec. 14th, to Mr. George Jacob Holyoake, the veteran social and political reformer. Mr. Holyoake, during his long career as an agitator (this is his own description of himself) has been a consistent worker for the public good. He was one of the most prominent in continuing the work begun by Joseph Hume, Thomas Wakley, the founder of THE LANCET, Lord Lytton, Daniel Whittle Harvey, and others, which resulted in the freeing of the press from the onus of stamp duties. It is on record that Mr. Holyoake incurred, by refusing to submit to the legislation of the "fifties," fines amounting in the aggregate to £600,000, a sum which he proposed to pay to the Chancellor of the Exchequer in weekly instalments. The public, to whom the vigorous octogenarian is only a name, are to have a taste of his editorial vigour, for Mr. Holyoake has been requested, and has consented, to edit the *Sun* for the week preceding Christmas.

THE PLAGUE IN INDIA.

BY ALEX. GRAHAM-SIMPSON.

I.—SYSTEM OF HARBOUR INSPECTION.

THERE is little wonder that the Orient liner *Ormuz* at Marseilles recently refused to go into quarantine considering what quarantine at Marseilles means. The writer has had experience both of the French and Spanish methods in regard to plague and quarantine. From the point of view of inspection they are most unsatisfactory; while in respect to quarantine the less said about them the better. If the authorities in these countries wish for an example of the perfection of medical work of this class they must go to India, particularly to Bombay. An account of how Europe is there safeguarded from the spread of the terrible disease at the present moment may prove of interest.

How great is the work entailed and how thoroughly it is carried out may best be understood from the fact that not a single native boat of any size whatsoever crosses Bombay harbour unless the occupants of the craft have been medically examined and reported upon. As regards vessels going to foreign ports the care exercised is of the minutest character. All passengers are medically examined on shore prior to embarkation, and officers and crew without exception have to undergo a similar ordeal. The time of departure for every ship is notified to the port health officer and recorded, so that each day brings a long programme of work, extending from sunrise to sunset, which has to be divided among the members of his staff. This consists of four fully-qualified European medical men, two European lady practitioners, a large number of subordinates, and a special corps of some 50 police.

As soon as the hold of a vessel is empty it has to be washed and disinfected, lest germs have been left there by the coolies who have assisted in unloading the cargo; and, when again at sea, the bilge water, which has been liberally treated with carbolic acid, has to be pumped out. Forecastle and cabins are thoroughly washed with disinfectants, while, as regards the men's quarters, it is insisted, not only that the inside of their bunks shall be so cleansed, but that the bottoms underneath shall undergo the same process. Carbolic powder is sprinkled all over. The medical authorities are furnished with a complete list of the crew and of every box belonging to them.

STEAMING PROCESS AT MALET BUNDER.

Before the departure of the vessel each man has to go ashore with all his belongings. If he has not had the good sense to attire himself in the cleanest clothes of which he is possessed he is made to do so. What he has put off is taken to that portion of the harbour known as Malet Bunder, and, along with the contents of his trunks, is placed in an iron cradle of huge dimensions. This, when full, is run on wheels along little rails into an immense boiler. Here for 15 minutes the articles are subjected to steam at a pressure of 10 pounds to the square inch, the temperature attained being no less than 239° F. Three times during those 15 minutes the steam is changed; and for five more minutes the clothes are subjected to hot air. The result is that the great iron cylinder becomes the tomb of every microbe that has been encased within it, and the hot air so dries everything that, excepting in the inmost folds, no trace of the steam can be found. What little damp remains vanishes on exposure to the air.

But while all this "cooking" has been going on the medical man has not been idle. He carefully examines the owner of the clothes.

In a large shallow tank at the end of the inspection sheds every box is washed and disinfected within and without. The crews of the P. and O. steamers have their boxes cleansed at the company's expense each voyage and covered with quick-drying red paint. In other cases the boxes are whitewashed. The date of the cleaning is carefully stamped upon the bottom of the trunks and a corresponding mark is placed upon the arms of the owners. The clothes are repacked. Men and boxes are then sent on board and are not allowed to come on shore again, policemen being kept on watch lest the rule should be broken. The number of men is checked by the ship's articles; and during their absence their quarters are searched to see that nothing which ought to have been disinfected has been kept back. On the departure of each batch the floor of the inspection shed is swept perfectly clean and the dust thus collected is burned. There seems to be no possible chance for the existence of germs. Regarding passengers, especially natives, the rules are most strict. None are allowed on board a boat thus prepared for sea by the medical authorities without the production of a ticket certifying that they have been thoroughly examined and are free from disease. As with the crew, once on board, there they have to stay.

All this is not sufficient, however. At the last moment, before the vessel leaves the harbour, one of the Port Health Staff goes on board. The roll of the crew is again called. Again they are examined and again their trunks are counted. Woe to the ship with an extra man or a box that does not bear the stamp of official approval! At the very least it will mean that the whole process of disinfection will be repeated after the removal of the guilty individual or the offending property.

SCENES AT MODY BUNDER.

The protection of foreign ports, however, does not alone occupy the attention of the Indian Government. At immense expense India, too, has to be sanitarily safeguarded. From Mody Bunder every week thousands of natives travel by steamer to different places along the coast. Every one of these is examined in the Bunder shed constructed specially to facilitate inspection. It is impossible for a single person to enter without being seen. At each end is a compartment where in the one men and in the other women may be called to undergo further examination if the first inspection has aroused suspicion in the mind of the medical man. Lady practitioners are, of course, employed to look after those of their own sex and the greatest care is taken that, so far as is consistent with thoroughness, caste prejudices are not aroused.

Before the departure of the steamers hundreds of would-be passengers congregate outside the long corrugated-iron shed awaiting admission. Once the doors are opened they stream in, a motley throng, and, toeing a mark on the floor, face the rising sun. The doctor passes down the row, taking temperatures and looking at tongues. Many of these passengers have been through the operation before and they sit patiently with tongues out and eyes shut awaiting the ordeal. At times the sight is very funny. Add to this the solemnity of the Oriental and the picture is easier to imagine than describe. But this is scarcely more amusing than the expression of relief that overspreads the features of those examined when they learn that all is well. Sick people rarely present themselves for examination. They have learned by experience that it is almost impossible to escape the vigilance of expert officers.

The local passenger boats, in the same way as those journeying to European ports, are subjected to the most rigorous cleanings and disinfectings, and though most of the staff are engaged during the remainder of the day in visiting the ships in the stream and at the docks, there is always one medical officer on duty at the coasting company's shed to see that everything is conducted in the way desired by Government.

THE VENICE CONVENTION.

Of the inspection of inward-bound vessels little need be said, excepting that it is equally thorough and, added to the duties of the Port Health Staff already enumerated, makes them without doubt one of the most hard-worked bodies of officials in India. It is no matter of surprise that when the Indian delegate at the Venice Convention, after a close investigation of the system, explained it to his colleagues his statement was received "with satisfaction mingled with incredulity." Members of foreign scientific commissions who have passed through India to study plague have expressed astonishment and admiration at the completeness of the inspection, and when the Venice Convention regulations were published it was found that they provided nothing essential that was not already in force in India. It was ruled, however, that all persons prior to embarkation were to be inspected first on shore, and this, as will be apparent from what has been stated, has been complied with most scrupulously.

INTERESTING STATISTICS.

The magnitude of the work done will be seen from the statistics. From February to May, 1897, 1038 square-rigged vessels and 16,154 native craft were inspected. Of passengers

182,386, and of members of crews 143,906, were examined, of whom 678 among the former and 153 among the latter were rejected. From June, 1897, to May, 1898, the number of square-rigged ships had risen to 2488 and the number of native craft to 48,730. There were 355,409 passengers and 458,462 members of crews inspected, of the passengers 10,635 being rejected and of the seamen 687. From June, 1898, to May, 1899, here was again an increase, the numbers being 2708 square-rigged ships inspected, 57,480 native craft, 546,881 passengers, and 695,136 members of crews. Of these the passengers rejected numbered 15,380 and of the members of crews found medically unfit there were 1314.

During the entire period, therefore, no fewer than 128,598 ships of various sorts had to be visited and 1,102,180 persons examined.

Bombay was visited three times by virulent epidemics of plague and was not once free from the disease. Nevertheless, only seven cases were reported as having occurred on ocean vessels. The first, it appears, was that of a pilgrim and occurred on a pilgrim-ship in 1897. The second was discovered on a military transport in the March of the same year. The passengers of the vessel had been examined by the military and not by the port officials. Two other cases were found on board P. and O. liners in March, 1898, during voyages between Bombay and Aden, and the remaining three occurred on the same line—one of a Lascar which proved fatal at Colombo, another of a native fireman who died at Aden, and the third of a native passenger whose death took place also at Colombo. At the time of writing it was not possible to ascertain accurately if many cases occurred among the millions of the crews and passengers who left Bombay for coast ports, but very few had been detected.

These facts speak volumes for the thoroughness and success with which the operations entrusted to them have been, and are being, carried out by the Port Health Staff at Bombay, whose duties, arduous as they are monotonous and often disgusting, have been fulfilled with a devotion worthy of the highest praise. The Indian treatment of quarantine patients France and Spain might copy with advantage, and they would benefit greatly by a more careful study and practice of every detail of the preventive system.

THE ELECTION OF DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

ON Tuesday afternoon, Dec. 10th, the result of the election of Direct Representatives for England and Wales upon the General Medical Council was made known. The voting resulted as follows:—

MR. GEORGE JACKSON	6518
MR. GEORGE BROWN	5369
DR. S. WOODCOCK	3161
DR. C. W. HAYWARD	1385

Mr. George Jackson therefore takes the seat left vacant by the retirement of Dr. Glover, while Mr. George Brown is re-elected for a further term of five years.

We have received the following letters for publication:—

TO THE REGISTERED PRACTITIONERS OF ENGLAND AND WALES.

FELLOW PRACTITIONERS,—I thank you very sincerely for the great honour you have done me in re-electing me, by an increased majority, as one of your Representatives on the General Medical Council, and I beg to assure you that in discharging the duties of the office I shall continue, as heretofore, to do all I can, having due regard to the claims of the public, to promote the welfare and best interests of the profession.—I remain, your obedient servant,

GEORGE BROWN.

6, Gibson-square, London, N., Dec. 11th, 1901.

TO THE REGISTERED MEDICAL PRACTITIONERS OF ENGLAND AND WALES.

FELLOW PRACTITIONERS,—I have to offer you my most sincere thanks for having returned me to represent your interests as a Direct Representative on the General Medical Council. I feel greatly the honour you have conferred on me, and hope to be able to help to carry out the reforms which we all desire to see accomplished.

I remain, your obedient servant,

GEORGE JACKSON, F.R.C.S. Eng.

10, Portland-villas, Plymouth, Dec. 11th, 1901.

To the Editors of THE LANCET.

SIRS,—Will you allow me through the medium of the columns of THE LANCET to express my hearty thanks to those ladies and gentlemen who voted for me in the election? I am, of course, well aware that it is to the principles which I advocated that I owe so large a measure of support.

I am, Sirs, yours faithfully,

Manor-place, Edinburgh, Dec. 9th, 1901. NORMAN WALKER.

Looking Back.

FROM

THE LANCET, *SUNDAY, DEC.* 14, 1823.

CONDUCT OF THE SURGICAL CLASS AT THE BOROUGH PREVIOUS TO SIR ASTLEY COOPER'S ENTRANCE.

To the Editor of The Lancet.

Dulce est desipere.

SIR,—Your facetious Correspondent, who recommended push-pin, and a variety of other games, to the adult members of the profession, in the last week's LANCET, would, perhaps, deem his advice unnecessary, if he were to witness the scenes which take place in the theatre of St. Thomas's Hospital, during the half hour previous to the entrance of Sir Astley Cooper. Students, already so accomplished in the branches of science pointed out by your Correspondent, can need no additional instruction. What an interesting spectacle, Mr. Editor, to see a body of young men assembled for the purpose of acquiring professional knowledge, actively engaged in discharging masticated paper and apple into each other's faces; or employed in the no less intellectual occupation of twirling round the Lecturer's table, or sprinkling dirt on the heads of those who happen to sit under them! I have been educated at Edinburgh; and have attended the medical schools of our continental neighbours, and I can assure you that the students of St. Thomas's are not only far greater proficients in these accomplishments than their graver brethren of the North, but that if a student from the *Ecole de Médecine* were introduced into the theatre in the Borough, he would be compelled to acknowledge the inferior vivacity of a class of French students. Such an admission would, no doubt, be very humiliating, but the students in the Borough are entitled to it; *palmam qui meruerunt ferant.*

Yours truly,

EDINENSIS.

Prizes proposed by the Royal Society of Medicine at Bourdeaux.

PATHOLOGISTS having admitted that there existed disease in which no alteration of the organic tissues could be discovered, have employed various terms to designate them. In the present improved state of pathological anatomy, accurate examinations of a great number of bodies after death have established the fact that certain diseases which have been hitherto supposed to be entirely produced by injuries of the vital functions, were in fact kept up by true organic injuries. Relying upon these recent discoveries, some physicians contend that there can be no disease without organic injury. In this state of our knowledge, the Society at Bourdeaux has considered it a favourable moment to propose to the discussion and decision of practitioners the following questions:

Do any diseases exist, in which the vital functions are alone injured, without any alteration of the organic tissues? Can these diseases be recognized and demonstrated by

positive characters, and subsequently confirmed by examinations after death?

A prize of the value of 300 francs will be adjudged to the best Essay on this subject, at the general meeting in 1824.

A similar prize will be adjudged to the best Essay on the following questions, at the meeting in 1825:

Can medicinal substances be safely injected into the venous system of man? What are the medicinal substances which can be introduced into the animal economy in this manner? And what are the diseases which require this mode of treatment?—*Journal Complémentaire du Dictionnaire des Sciences Médicales, Nov. 1823.*

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6358 births and 4292 deaths were registered during the week ending Dec. 7th. The annual rate of mortality in these towns, which had been 19·4 and 20·3 per 1000 in the two preceding weeks, declined again last week to 19·5 per 1000. In London the death-rate was also 19·5 per 1000, and corresponded with the average rate in the 32 large provincial towns. The lowest death-rates in these towns were 13·6 in Croydon, 14·0 in Portsmouth, 14·3 in Derby, and 15·3 in Bradford; the highest rates were 23·0 in Manchester, 23·9 in Oldham, 28·6 in Blackburn, and 29·3 in Norwich. The 4292 deaths in these towns last week included 135 from measles, 70 from diphtheria, 64 from whooping-cough, 50 from scarlet fever, 44 from "fever" (principally enteric), 30 from diarrhœal diseases, and 16 from small-pox. In all, 417 deaths resulted from these principal zymotic diseases, against 427, 443, and 434 in the three preceding weeks. No death from any of these diseases occurred last week in Huddersfield; in the other towns they caused the lowest death-rates in Croydon, Cardiff, Hull, and Gateshead, and the highest rates in Birmingham, Norwich, Manchester, Oldham, Blackburn, and Halifax. The greatest proportional mortality from measles was recorded in Norwich, Manchester, Oldham, Blackburn, Halifax, and Sheffield; from scarlet fever in Birmingham; from "fever" in Plymouth; and from diarrhœal diseases in Swansea, in Nottingham, and in Burnley. The mortality from whooping-cough showed no marked excess in any of the large towns. The 70 deaths from diphtheria in these towns included 36 in London, five in Liverpool, four in Sheffield, three in West Ham, and three in Bristol. 16 fatal cases of small-pox occurred in London, but not one in any of the 32 large provincial towns. There were 474 cases of small-pox under treatment in the Metropolitan Asylums hospitals on Saturday, Dec. 7th, against 368, 396, and 427 at the end of the three preceding weeks; 170 new cases were admitted during the week, against 113, 141, and 123 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 3353, 3336, and 3273 on the three preceding Saturdays, had further declined to 3241 at the end of last week; 377 new cases were admitted during the week, against 376, 379, and 320 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 582 and 534 in the two preceding weeks, further decreased last week to 470, but were 33 above the corrected average. The causes of 42, or 1·0 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Bradford, Leeds, and in 14 other smaller towns; the largest proportions of uncertified deaths occurred in Liverpool, Blackburn, Preston, Sheffield, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·9, 21·3, and 22·2 per 1000 in the three preceding weeks, declined again to 20·5 per 1000 during the week ending Dec. 7th, but was 1·0 per 1000 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 14·2 in Perth and 14·4 in Paisley to 23·6 in Aberdeen and 24·8 in Leith. The 653 deaths in these towns included 23 which were referred to measles, 21 to diarrhœa, 10 to "fever," nine to scarlet fever, five to diphtheria, and four to whooping-cough. In all, 72 deaths resulted from these principal zymotic diseases last week, against 85 and 77 in the two preceding weeks. These 72 deaths were equal to an annual rate of 2·3 per 1000, which was 0·4 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of measles, which had been 29 in each of the two preceding weeks, declined last week to 23, of which 20 occurred in Glasgow and two in Dundee. The deaths from diarrhœa, which had been 30 and 21 in the two preceding weeks, were 21 last week, and included eight in Glasgow, five in Dundee, four in Edinburgh, two in Aberdeen, and two in Leith. The fatal cases of "fever," which had been 12, eight, and nine in the three preceding weeks, rose again last week to 10, of which seven were registered in Glasgow and two in Paisley. The deaths from scarlet fever, which had been eight, six, and three in the three preceding weeks, increased to nine last week and included four in Glasgow, three in Greenock, and two in Edinburgh. The fatal cases of diphtheria, which had been six and eight in the two preceding weeks, declined again last week to five, of which four occurred in Glasgow, where the four deaths from whooping-cough were also registered. The deaths referred to diseases of the respiratory organs in these towns, which had been 177 and 186 in the two preceding weeks, decreased again last week to 180, but were 29 in excess of the number in the corresponding period of last year. The causes of 27, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·8 and 18·8 per 1000 in the two preceding weeks, rose again to 20·2 during the week ending Dec. 7th. During the past four weeks the death-rate has averaged 21·7 per 1000, the rates during the same period being 20·6 in London and 18·7 in Edinburgh. The 145 deaths of persons belonging to Dublin registered during the week under notice were 10 in excess of the number in the preceding week, and included six which were referred to the principal zymotic diseases, against nine and seven in the two preceding weeks; of these, three resulted from diarrhœal diseases, one from scarlet fever, one from diphtheria, and one from "fever," but not one from either small-pox, measles, or whooping-cough. These six deaths were equal to an annual rate of 0·8 per 1000, the zymotic death-rates in the same period being 1·5 in London and 1·3 in Edinburgh. The three deaths from diarrhœal diseases showed a slight decline from the number in the preceding week. The 145 deaths in Dublin last week included 23 of children under one year of age and 38 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a slight decline from the respective numbers recorded in the preceding week. Four inquest cases and two deaths from violence were registered, and 57, or more than a third, of the deaths occurred in public institutions. The causes of 12, or more than 8 per cent., of the deaths in Dublin last week were not certified.

THE SERVICES.

ROYAL ARMY MEDICAL CORPS.

THE under-mentioned officers are placed on temporary half-pay on account of ill-health:—Lieutenant-Colonel F. A. Harris (dated Oct. 24th, 1901); Captain J. E. Carter (dated Dec. 1st, 1901).

Major J. H. Nicholas, retired pay, has arrived for duty at Derby and has assumed medical charge of the station hospital and troops. Captain F. R. Buswell has been permitted to extend his tour of Indian service until the next trooping season. Captain G. B. Stanistreet proceeds to Southampton for duty.

INDIA AND THE INDIAN MEDICAL SERVICES.

Major C. C. Manifold, Indian Medical Service, to be Lieutenant-Colonel in recognition of services during the operations in China. The award bears date Nov. 29th, 1901.

VOLUNTEER CORPS.

Submarine Miners: The Forth Division: Surgeon-Lieutenant J. Wilson to be Surgeon-Captain. *Rifle:* 6th Volunteer Battalion the Royal Scots (Lothian Regiment): Harold

Sherman Ballantyne to be Surgeon-Lieutenant. 2nd Volunteer Battalion the Prince of Wales's Own (West Yorkshire Regiment): Surgeon-Lieutenant-Colonel S. Johnson resigns his commission, with permission to retain his rank and to wear the uniform of the battalion on retirement. 2nd Volunteer Battalion the East Lancashire Regiment: Surgeon-Captain C. E. R. Bucknill resigns his commission. 2nd (South) Middlesex: Surgeon-Major S. H. Moore resigns his commission, with permission to retain his rank and to wear the uniform of the corps on retirement.

VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: Herbert George Parker to be Surgeon-Lieutenant.

SOUTH AFRICAN WAR NOTES.

Civil Surgeons Lavertine, Dickenson, Strange, Ward, McLean, and Gould have been discharged from hospital to duty.

Major B. M. Skinner, R.A.M.C., is returning to England from South Africa in the s.s. *Tagus*.

Civil Surgeon McCabe, reported missing at Doornkop on Nov. 28th, has rejoined.

On Dec. 7th, at Dublin Castle, the Lord Lieutenant of Ireland presented war medals to the members of the Irish Hospital Corps which returned recently from South Africa.

The Imperial Yeomanry Hospital at Elandsfontein will be transferred to the authorities on Dec. 28th and the medical officers, sisters, and other members of the staff will return to England by the first available transport.

AFFAIRS IN SOUTH AFRICA.

As far as the purely military aspect of affairs is concerned there seems to have been an increased activity in South Africa of late and the progress of events has been going on at a somewhat accelerated pace. We can only trust that Sir Gordon Sprigg will prove correct in expressing his conviction that the war is fast drawing to a close. The total casualties that have been incurred from the beginning of hostilities up to and including last month mount up to a considerable figure. The total reduction of the military forces through the war, including deaths in South Africa, missing, and prisoners, deaths among invalids sent home, and invalids discharged the service as permanently unfit, amount to 907 officers and 22,564 rank and file = 23,471. It may be mentioned as a satisfactory fact that a great majority of the men invalided home have recovered and rejoined for duty. As regards the Boer population in the concentration camps there is no doubt that there has been a deplorable amount of sickness and death. The occupation of these camps was apparently unavoidable under the circumstances and was dictated as a matter of humanity to the Boer families as much as one of military and general policy. As far as we understand, the camps no longer remain under the control of the War Office, but have passed under the authority of the Colonial Office and are, as far as practicable, to be split up and a number of practical changes are to be introduced and carried out in regard to them.

THE LATE SIR WILLIAM MAC CORMAC.

The *Times* of Dec. 9th publishes a letter from Sir William Mac Cormac to Sir James Blyth written while on the way home from South Africa in April last:—

> I have accomplished a great deal—I am myself astonished how much—during the four and a half months I was in the country. I have visited all the hospitals in Natal and in Cape Colony and have seen the working of the field hospitals at the front—where I have been four times—the hospitals, and hospital trains along the lines of communication, and the base hospitals; and, to make the experience complete, I have been a patient in hospital myself with a short attack of dysentery, which was sufficiently unpleasant and painful. You will grant that I am qualified so to speak when I affirm that never were medical arrangements better or more complete, or an expedition ever sent out more thoroughly and lavishly supplied with everything that medical foresight could suggest. I have been consulted in cases innumerable; and, in doing what I have sketched, have had to travel over more than 6000 miles of country. The powers that be out here, from Lord Roberts downwards, have expressed themselves very flatteringly, and I have myself the conviction, I hope not misplaced, that I have been able to do some public service. When we meet I will tell you of my adventures. I am glad, and yet sorry, to return, but practically Lord Roberts insisted, and it was a command virtually. He said I had done my share and earned a rest. I do not think I could have done more than repeat what I had already done had I remained; and there is much for me to do at home.

Surgeon-Major-General A. M. Tippetts, retired list, A.M.S., has been granted a distinguished service reward of £100 a year.

LADY BADEN-POWELL'S APPEAL.

Lady Baden-Powell, in thanking the press for making known the scheme for sending a small Christmas present to each man in the South African Constabulary, states that the required sum of £1000 has now been raised, some friends of the corps having undertaken to make up the very small deficiency. For the information of those who have given donations Lady Baden-Powell mentions that none of the money has been used for any expenses incurred in forwarding the goods, postages, agency, &c. Each man of General Baden-Powell's force has been sent a Christmas pudding, half a pound of tobacco, a pipe, and a handkerchief. In addition, supplies of books, magazines, clothing, chocolate, cigarettes, &c., which have been sent by friends, have been forwarded. Some large and generous donations have been received, but a great part of the funds has been made up in small sums—even schoolboys and servants foregoing their Christmas presents in order to send the money to those who are so far from the good cheer of their home circle this Christmastide.

THE IRISH HOSPITAL CORPS.

Earl Cadogan, the Viceroy of Ireland, on Saturday afternoon last presented medals to the Irish Hospital Corps who served in South Africa. His Excellency was accompanied by the Duke of Connaught and a distinguished company, and after presenting the medals to Sir William Thomson, Mr. George Stoker, and other members of the corps, gave an address highly eulogising the work they had done and the great services they had rendered at the seat of war. In the course of his address Lord Cadogan alluded to the service rendered by the late Sir William Mac Cormac and to the noble and pathetic story of Mr. W. Smyth of Donegal. Sir William Thomson, in returning thanks on behalf of the Hospital Corps, said that they were especially proud to have been permitted to take part in the glorious work of succouring the sick and wounded of friend and foe in South Africa.

CHANGES IN THE ARMY MEDICAL SERVICE.

Surgeon-General W. Taylor, C.B., having arrived home, as we announced last week, to take up his appointment as Director-General of the Army Medical Service, it will be necessary to fill up the post he has vacated of Surgeon-General to His Majesty's forces in India, and there naturally exists some interest as to the medical officer to be nominated for the purpose. Surgeon-General W. S. M. Price is officiating as head of the British Medical Service in India in the meantime. Owing to the occurrence, or shortly anticipated occurrence, of vacancies in the rank of surgeon-general several promotions should soon take place.

Correspondence.

"Audi alteram partem."

RASH AFTER TONSILLOTOMY.

To the Editors of THE LANCET.

SIRS,—As I am much interested in all "rashes" I would raise the question whether the non-specific rash following Mr. H. W. Henshaw's operation (recorded in THE LANCET of Nov. 30th, p. 1531) did not arise from the administration of a soap-and-water enema either before or after the operation? This is an exceedingly common cause of such eruptions in children.

I am, Sirs, yours faithfully,

Rugby, Dec. 4th, 1901. CLEMENT DUKES.

To the Editors of THE LANCET.

SIRS,—With reference to the remark of Mr. H. W. Henshaw in THE LANCET of Nov. 30th, p. 1531, on a rash following the removal of tonsils and adenoids I should like to say that a similar case occurred to me recently after removal of adenoids alone from a girl, aged 13 years. The rash occurred two days after operation and covered the chest, abdomen, back, and limbs, but not the face, hands, or feet, being thus similar to Mr. Henshaw's case. It was red, punctiform, and raised, and there was a little irritation on the chest. The temperature was not raised and the patient

felt perfectly well. The rash disappeared gradually and was gone in two days, leaving no desquamation. Very little chloroform was given, no drugs were administered, and there was no alteration in diet.

I am, Sirs, yours faithfully,

Ramsgate, Dec. 7th, 1901. H. W. REYNOLDS, M.B., B.Sc.

To the Editors of THE LANCET.

SIRS,—In respect to your note to my communication published in THE LANCET of Nov. 30th, p. 1531, recording the occurrence of a rash after tonsillotomy, I trust that you will permit me to answer your inquiries and to explain that I omitted the details you mention because they seemed of quite negative value. No drugs whatever were being taken. The only change of diet was the usual one of placing the patient on fluid food for a short time after the operation. Chloroform was the anæsthetic employed. It is, of course, often most difficult directly to associate cause and effect, but in this case there was no obvious reason for the eruption apart from operation, and I therefore felt justified in regarding it as an instance of "tonsillotomy rash," of which Wingrave recorded 30 cases in the *Laryngoscope* of July, 1901. I am, Sirs, yours faithfully,

H. W. HENSHAW, M.R.C.S. Eng., L.R.C.P. Lond.,

Kew, Dec. 10th, 1901. D.P.H. Lond.

AN ELECTRO-THERAPEUTICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—I was pleased to see in THE LANCET of Dec. 7th, p. 1611, a letter from Mr. Chisholm Williams asking for support in the formation of a society for those practising electro-therapeutics. In this country we are sadly behind many of our continental neighbours in the use of the physical forces in the treatment of disease and this is more especially the case with electricity. Hitherto it has been left to the few who have learned to appreciate the immense value of the intelligent use of electricity in medical treatment to combat as best they can the grave prejudice existing in the mass of the profession against what may be called electrical treatment. Such a society, if well supported, should do much to rescue electro-therapeutics from the lay "medical electrician" and the vendor of the so-called "electric" belts. As one who has for many years worked in this field, and who relies largely upon electricity as a therapeutic agent, I shall be pleased to give such a society every help in my power.

I am, Sirs, yours faithfully,

RICHARD J. COWEN, L.R.C.P. Irel., &c.

Clarges-street, Mayfair, W., Dec. 9th, 1901.

To the Editors of THE LANCET.

SIRS,—Referring to Mr. Chisholm Williams's letter of last week suggesting the formation of a new society, will you allow me to say that the council of the Röntgen Society have for some time past been considering the advisability of enlarging its scope so as to include the investigation of other radiations than those immediately connected with its name. The president in the address he delivered on Nov. 7th last expressed these views somewhat fully and it has since been decided to carry them out and the question of a possible modification in the name of the society is also under consideration. The object Mr. Williams desires to effect by forming a special medical society has not been lost sight of, but it is felt that the new therapeutic agents such as high-frequency electric currents, Finsen light, &c., call for so much further investigation that it would not be wise —certainly at present—to exclude the valuable help of physicists who have leisure to undertake such inquiries, few medical men having the time at their disposal for original research. This plan has worked very well in our society in the matter of x rays, the result being that the medical profession has now in its hands better apparatus and fuller knowledge than would have been possible had there not been the coöperation of which I speak.

I am, Sirs, yours faithfully,

J. J. VEZEY,

Dec. 9th, 1901. Honorary Treasurer to the Röntgen Society.

To the Editors of THE LANCET.

SIRS,—I trust that the scheme spoken of by Mr. Chisholm Williams in THE LANCET of Dec. 7th (p. 1611) will bear practical fruit. An electro-therapeutical society is really wanted. I am, Sirs, yours faithfully,

Dec. 12th, 1901. M.B.

*** A society which would bring together those who are working at the subject of medical electricity might be a useful thing, although we are always a little loth to recommend the addition of a new scientific society to the already lengthy list of such bodies. But additions to the ranks of those interested in electricity have been numerous lately and it may reasonably be supposed that there are now enough to keep a special society alive. Of matters to be discussed there is no lack; what is required is a gathering of persons qualified to discuss them.—ED. L.

THE ADMINISTRATION OF CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 23rd, p. 1418, is an account of the opening meeting of the Society of Anæsthetists. The difference of opinion expressed shows the lack of clear thought that exists in the profession with regard to the safe administration of chloroform. In no one instance was *personal* experience advanced. Observation is one thing; to speak from actual personal knowledge in conjunction with observation is another. It seems to me that a multiplicity of words only fogs the subject and that the matter is in a nutshell. At any rate, I am ready at any time to prove before any number of the profession that chloroform *when properly administered* is, and ought to be, free from danger and all bad after-effects worth naming. This I am willing to demonstrate by taking it to the stage of surgical anæsthesia by a *Krohne inhaler* and then getting up and riding away on my tricycle. Surely it is time this question should be definitely settled so that the public may always have it rightly administered. The whole question is one of overdosing.—I am, Sirs, yours faithfully,

C. J. HARRIS, M.R.C.S. Eng., &c.

Kilburn Priory, N.W., Dec. 3rd, 1901.

AN UNDESCRIBED (?) SYMPTOM IN WHOOPING-COUGH.

To the Editors of THE LANCET.

SIRS,—I should like to draw the attention of your readers to a symptom which I have both experienced and observed in whooping-cough and which, if it receives corroboration, may prove of assistance in the diagnosis of this very troublesome disease. I had the misfortune last summer to contract whooping-cough from a hospital case and subsequently to infect my two children. In my own case I had the usual preliminary catarrhal stage, followed by paroxysmal cough, the fits being so prolonged as to result on one occasion in the rupture of some fibres of one of the abdominal muscles. During the whole course of the illness—some seven or eight weeks—I whooped only twice or three times. But after every paroxysm of at all a severe nature a series of what one might perhaps call deglutition spasms set in, and I had to gulp down saliva as quickly as possible for a minute or two, the interval between the gulps gradually lengthening and the paroxysm finally passing off.

I found it quite impossible to control these gulps, though I tried hard. The sensation was a most unpleasant one as were also the consequences, for one's stomach became largely filled with air. I noticed the same symptoms in both of my children though only at such times as they did not whoop. I also observed it in two children at the Stockport Fever Hospital, again at times when they did not whoop. Apart from this symptom all the cases mentioned were quite typical. I do not find any mention of this symptom in Fagge, Goodhart, Taylor, Watson, or Carter, and none of the medical friends to whom I have spoken have ever observed it. It appears to me, however, that it is worth while bringing it to the notice of your readers in order to see whether it has been observed and recorded before or not. My own experience of it was quite sufficient to impress me with its unmistakeable character. I am, Sirs, yours faithfully,

Stockport, Dec. 5th, 1901. MEREDITH YOUNG, M.D. Edin.

UNDERFED CHILDREN IN THE BOARD AND VOLUNTARY LONDON SCHOOLS.

To the Editors of THE LANCET.

SIRS,—Will you permit me once more to appeal to the charitable public through your columns on behalf of the funds of the London Schools Dinner Association? That association provides cheap or free meals for underfed children in the board and voluntary schools of London. The grants which it makes for that purpose are administered by local committees upon which the managers and teachers are represented. These committees ascertain by proper inquiry that the need of application for relief is real and undertake the economical provision and distribution of suitable food.

Last winter the underfed children in 181 schools were thus relieved, under the administrative control of 79 local committees. About 660,000 meals were provided, of which 102,800 were paid for wholly or partly, by the recipients. The total receipts from donations were £1186, but the amount spent in the provision of meals alone was £1286. This is the third year in which the necessary expenditure of the association has exceeded its income. The total deficit for that period now amounts to more than £700, and the accumulations of earlier years, when income exceeded expenditure, are now practically exhausted. Unless, therefore, the association receives a substantial increase of income at an early date, its necessary and beneficent work will have to be curtailed.

Cheques and postal orders should be made payable to "The London Schools Dinners Association," and crossed "Barclay & Co.," and forwarded to the Secretary, 117, School Board Offices, Victoria Embankment, W.C.

I am, Sirs, yours faithfully,

REAY,
Chairman of the School Board for London.

THE LATE R. B. ANDERSON FUND.

To the Editors of THE LANCET.

SIRS,—With reference to the affairs of the late Mr. R. B. Anderson, it may be within the recollection of your readers that in July last we made an appeal to the profession for subscriptions towards the support of his widow and their twin sons. This subscription now amounts to about £80, a very inadequate sum; but the committee feel that it is useless to keep the fund open much longer. It has therefore been decided to close it on Wednesday, Jan. 8th, 1902, and to make an earnest appeal in the meanwhile for further donations. The amount realised will at once be sent out to the island of Tobago to be used for the benefit of Mrs. Anderson and her two sons at the discretion of the Warden of that island. We may add, in view of a rumour which has prevailed that the Civil Rights Defence Committee was dissolved in consequence of some misconduct on Mr. Anderson's part, that the only reason for the dissolution of that committee was its failure to collect, in the time given for that purpose, the funds required for the contemplated appeal to the Privy Council.

Donations are to be marked "for the late R. B. Anderson Fund," and to be sent, and cheques, &c., made payable, to the Manager, Union Bank of London, Chancery-lane, London, W.C. They will be duly acknowledged.

We are, Sirs, yours faithfully,

STAMFORD, Chairman.
Dec. 9th, 1901. TIMOTHY HOLMES, Hon. Treasurer.

THE DANGERS OF A COMMON COLD.

To the Editors of THE LANCET.

SIRS,—The evidence that all colds are infectious and that without the presence of infection it is impossible to catch a cold is probably far stronger than your correspondent Dr. Clayton Jones thinks. Colds are almost unknown in the Arctic Circle, not on account of the action of the continuous cold, but because the greater part of that region is uninhabited. When Sir William Conway and his men were exploring Spitzbergen, though they were exposed to great privations and were almost constantly wet through, they never caught a cold, but directly they came down to Andrée's settlement on the coast, where some 40 men were living in almost constant intercourse with the mainland, they all developed violent colds. Nansen and his men never caught a cold during all the three years of his voyage, notwithstanding the utmost exposure, but directly they reached civilisation on the coast of Norway, though still within the Arctic Circle, they all suffered badly from colds. The weather is not always keen and bracing in the Arctic regions; during the summer-time in Franz Josef Land, at any rate, it is exceedingly damp, and raw mist-laden east winds prevail; yet the members of the Jackson-Harmsworth Expedition never caught a cold there, though all but two of them did so directly they reached civilisation. More noteworthy still were Conway's experiences in the Himalayas. While amongst the mountains he and his men, notwithstanding great exposure, never caught colds; nor did they even when they visited the small remote native villages; but once they came down to a village where there was a small European settlement in communication with the outer world, and there they all took bad colds. Nor is it only in the Arctic regions and amongst high mountains that colds are absent; the same immunity from them is noticeable during long sea voyages and when camping out in the desert; and, still more unexpectedly, in the best open-air sanatoriums, such as Nordrach, where the ventilation is practically perfect, it is found that the patients do not catch cold. There is, I believe, plenty of other evidence to show that there are places remote from ordinary human life where colds cannot be caught whatever the exposure; probably many of your readers can bring forward instances. On the other hand, that ordinary colds are in the highest degree infectious is now becoming a matter of common knowledge, and any medical man if he goes about with open eyes can collect evidence for himself. I have watched a cold pass from house to house and have even traced it from one village to another and have listened, not without some amusement, while the different sufferers from it have explained to me just how they caught it—ascribing it to some open window, change of garment, or other fancied imprudence. I know houses where all the members of the household, including visitors and children, are constantly catching colds, and they are not the airy or even the draughty houses, but stuffy, grimy, badly ventilated, and dark ones. No doubt it is possible to have an inflammation of the nasal mucous membrane, as of the conjunctiva, from some simple irritant, but such an event is rare, whereas the ordinary infectious cold is by far the commonest of all diseases. Surely, therefore, it is important that its infectiousness should be frankly recognised.

I am, Sirs, yours faithfully,

Shrewsbury, Dec. 3rd, 1901. H. WILLOUGHBY GARDNER.

MR. HORSLEY'S ELECTIONEERING SPEECHES.

To the Editors of THE LANCET.

SIRS,—I have only to say in reply to Mr. Horsley's personal abuse of me, reported in your columns last week, that my letter on pp. 1374–75 of THE LANCET of Nov. 16th remains unanswered. Had Mr. Horsley's hands been clean it was open to him to refute the statements therein before the election, and especially the paragraph commencing: "I am much surprised at Mr. Horsley's attitude towards the sitting Direct Representatives." His lame defence before the Council proves that there was not a word of truth in his allegations against his colleagues, and particularly Mr. George Brown, against whom he now admits they were directed.[1] As to the rest, it can stand over until Mr. Horsley comes up for judgment before the constituency next year.

I am, Sirs, yours faithfully,

Liverpool, Dec. 7th, 1901. ALEX. MCCOOK WEIR.

A MEDICAL DEGREE FOR LONDON STUDENTS.

To the Editors of THE LANCET.

SIRS,—I beg to suggest that now is a most favourable opportunity for the London University and the Royal Colleges to formulate some scheme for the institution of a pass degree in medicine for London students. The exigencies of the situation are pressing. I submit that

[1] Vide Brit. Med. Jour., Nov. 23rd, p. 1544, and Dec. 7th, p. 1713.

future medical students will demand a pass degree as a reward for their labours. If this is not forthcoming they will not be induced to come to London. Generation after generation of medical students have hoped that something would be done by way of relief. Long-deferred hope is at present in a dying condition and approaching the end, and will be buried in the near future, hence the falling off in the entries at the metropolitan schools. As a result London will cease to be the great medical teaching centre, and the Royal Colleges will lose their position to a great extent as pass diploma-granting bodies within, say, the next 15 years. The plea that London has great clinical advantages will no longer act the siren and lure the student to London, as provincial universities with well-equipped laboratories and able staffs of teachers have been formed in populous manufacturing districts which offer clinical material to satisfy the most enthusiastic teacher and student.

I am, Sirs, yours faithfully,

FREDERICK W. COLLINGWOOD.

Wimpole-street, W., Dec. 8th, 1901.

SMALL-POX AND VACCINATION.

To the Editors of THE LANCET.

SIRS,—All vaccinators are aware that many mothers object to vaccination in three or four places; consequently, if they can have their children vaccinated in one place only for sixpence they will not go to the public vaccinator for gratuitous vaccination in three or four places. There are medical men in South London who take advantage of this fact and do a considerable practice in sixpenny vaccinations. This cheap, and probably inefficient, sort of vaccination should be put a stop to, and I am surprised that any medical man can for a few pence consent to perform a most important duty in such a slovenly manner. If all vaccinations were efficient and successful the time would come when small-pox would attack the unvaccinated only and then the anti-vaccinationists would be silenced. I therefore recommend all with whom I have any influence to go to the public vaccinator who uses reliable lymph, vaccinates in three or four places, and has the skill which only large daily practice can give. If, as you say, there is better lymph than that prepared in the laboratory of the Local Government Board there is also much worse and some that is quite inert. A medical friend who is a most careful and skilful vaccinator got no results whatever from some lymph supplied by a certain firm, so instead of regarding his patients as "immune" (as too many would have done) he obtained some lymph from another firm, revaccinated all of them, and got most satisfactory results. I therefore agree with Dr. D. Nabarro who, in his letter in THE LANCET of Nov. 16th, p. 1371, said that "the Local Government Board ought to supervise the manufacture of the lymph supplied by the various firms or make arrangements whereby practitioners other than public vaccinators may obtain a reliable lymph. At present it is only by going to the public vaccinators that the public are certain of being treated with a potent lymph."

I am, Sirs, yours faithfully,

D. HOOPER, B.A., M.B. Lond.

Trinity square, S.E., Dec. 7th, 1901.

To the Editors of THE LANCET.

SIRS,—There is but one way in which vaccination will become universal and all objections to public vaccinators' methods cease. When the present Act expires let a public vaccinator be appointed to do nothing else and after each vaccination inspection let him give the parent a paper guaranteeing to pay £10 if the child gets small-pox in 10 years. Years ago I wrote to you asking whether I should offend against ethics in doing so, and although you were good enough to state that my action would be correct I felt that it would arouse so much ill-feeling that I have never done it except to private patients. When a public vaccinator becomes a vaccinator and nothing else and has no possibility of having wrong motives applied to his actions, the general practitioner will encourage patients to go to the public vaccinator; it will not be worth while to do cheap "one mark" vaccinations and all the present friction will cease. It would be far cheaper to employ such a scheme, for each vaccinator—of which there could, at any rate in towns, be far less—would have a definite salary and a small capitation grant. I suppose there is no public vaccinator who would not be willing to make the £10 guarantee part of his contract, for he could always refuse it when the vesicles were not satisfactory, and it is the only method that will convince the general public of the efficacy of vaccination.

I am, Sirs, yours faithfully,

Dec. 7th, 1901. P. V.

THE DIRECTION OF HAIR ON THE HUMAN ARM.

To the Editors of THE LANCET.

SIRS,—The letter of Mr. G. Sherrington-Morris in THE LANCET of Dec. 7th, p. 1611, is both interesting and pertinent and, as far as it goes, bears out the view which I have sought to establish—viz., that use or habit may produce results which are inherited by offspring. The weak side of his communication from the point of view of inheritance is the failure to show whether or not these differences of hair-slope are found in infants. I may say that I happen to be at present investigating this very point as to the direction of the hair-slope on the arms of infants or very young children among these two sects of Mahomedans before the age at which the special ritual washings commence. The subject is being investigated for me by certain Mahomedans in India and I am hoping to make known the results of their observations as soon as they are received, whether they bear out my view or not. If very young children in these two sects of Mahomedans are shown to have no observable difference of hair-slope on their arms it may not prove much as to inheritance. But if a real difference exists in these young subjects the case will become a true *experimentum crucis* of a much-debated doctrine, and, I would add, in that case it will have the special value of being a small contribution to the statistical proof of the doctrine that acquired character can be inherited, because of the fact that the schism between these two sects occurred about the tenth century and the ceremonial acts referred to have been performed on the average five times a day by the individual Mahomedans according to their peculiar tenets. If I should obtain any definite results, I hope, Sirs, that you will be kind enough to allow me to publish them in due course.

I am, Sirs, yours faithfully,

Dec. 9th, 1901. WALTER KIDD.

EXCESS OF SALT IN THE DIET A PROBABLE FACTOR IN THE CAUSATION OF CANCER.

To the Editors of THE LANCET.

SIRS,—In reference to Dr. J. Braithwaite's paper read before the Leeds and West Riding Medico-Chirurgical Society[1] it may be worthy of remark that the mortality from cancer is high in Switzerland, and its increasing prevalence has already attracted observation. The consumption of salt in the country is very popular, and a salt flavour is considered essential in all savoury dishes, even by professed cooks. Bakers add salt to bread largely, sometimes in quantity sufficient to render it unpalatable to many persons not accustomed to the taste of it in bread. *Consommé* and soups are generally overloaded with salt, especially among the poorer classes of society. Salads and vegetables get a full share of it too. *Charcuterie* (sausages, ham, &c.) is cheap and is consumed freely. From personal observation I should consider the national appetite was exaggerated for salt as well as for sugar. In the consideration of cancer it may not be out of place to note that a considerable proportion of beef is furnished from old worn-out animals—cows unfit for the dairy or for traction and oxen no longer serviceable in harness.

I am, Sirs, yours faithfully,

Montreux, Switzerland, Dec. 7th, 1901. TUCKER WISE.

THE NEW GYNÆCOLOGICAL JOURNAL.

To the Editors of THE LANCET.

SIRS,—It is a pity that Messrs. Baillière, Tindall, and Cox did not, before issuing the prospectus of their new venture, take the trouble to ascertain the truth or otherwise before making the statement that "at present there is no

[1] THE LANCET, Dec. 7th, 1901, p. 1578.

journal devoted to the interests of British workers in obstetrics and gynæcology, and therefore they have recourse to the transactions of societies, hospital reports, and the general medical press in order to make known the results of their observations and researches."

The *British Gynæcological Journal* has now been in existence for 16 years. It is not merely the record of the proceedings of a society but is also "an exponent of contemporary thought and achievement in these branches of medicine and surgery throughout the world." The new journal will therefore be only copying a good example, and running on similar lines to the *British Gynæcological Journal*. It is a pity that instead of adding another journal to the large number already existing, the promoters of the new journal did not arrange to send their contributions to the old-standing journal and so help to make it still more, if possible, a representative publication of British gynæcology and obstetrics, more after the plan of the *American Gynæcological Journal*, instead of still further splitting up much useful information and trying to justify its appearance by making a misleading statement to its prospective subscribers.

I am, Sirs, yours faithfully,

Harley-street, W., Jan. 8th, 1901. HEYWOOD SMITH.

MEDICAL OR LAY SECRETARIES TO HOSPITALS.

To the Editors of THE LANCET.

SIRS,—I ask permission to attempt to obtain the opinion of members of the medical profession through the medium of THE LANCET (or to myself privately) on the advantage or otherwise accruing to the public in appointing *medical* secretaries of hospitals, sanatoriums, and similar institutions (or of committees to organise their foundation) rather than lay officials. In such a question the spirit of the times may be read in recent appointments made in many professions, services, and public departments, at home and abroad, which attest the value of educated and specialised knowledge in such officials. Whether medical candidates for such posts could be obtained is another matter.

I am, Sirs, yours faithfully,

20, Athenæum-street, Plymouth, Dec. 6th, 1901. F. BUSHNELL.

A SIMPLE APPARATUS FOR ETHER NARCOSIS.

To the Editors of THE LANCET.

SIRS,—It may interest the many medical men who have seen my ether inhaler in use to learn that I have received a letter and pamphlets from Dr. Longard of Aix-la-Chapelle from which I gather that the inhaler described in your issue of Nov. 9th, p. 1297, is the joint production of Dr. Longard himself and of Dr. Wagner.

In his letter Dr. Longard admits that there are several resemblances (*ähnlichkeiten*) between the Longard-Wagner inhaler and mine, and he then goes on to point out what he is pleased to call several essential differences. He states (1) that in the Longard-Wagner inhaler the ether reaches the absorbent surface through the funnel, while in mine the cover must be removed in order to let the anæsthetic gain access to the interior; (2) that in the Longard-Wagner inhaler there is only one inspiratory valve and that the absorbing material consists of gauze arranged between two metal sieves, while my inhaler is provided with two inspiratory valves: and (3) that in the Longard-Wagner inhaler the ether chamber is warmed by a "thermophor," while in mine the necessary heat is obtained by means of a hot-water jacket.

So much for the essential differences as enumerated by Dr. Longard. To me they seem most trifling variations in detail, and I feel therefore justified in maintaining that the Longard-Wagner inhaler is practically the same as that devised by me many years ago. That the two inhalers are identical to all intents and purposes may be seen by comparing the diagrams of my ether inhaler in THE LANCET of July 5th, 1884, p. 19, and of the Longard-Wagner ether inhaler in THE LANCET of Nov. 9th, 1901, p. 1297.

I do not assert that Dr. Longard and Dr. Wagner have derived the idea of their inhaler from previous acquaintance with mine, but the similarity between the two is, to say the least, sufficiently remarkable to call for comment and to merit explanation.—I am, Sirs, yours faithfully,

P. BLAIKIE SMITH, M.D. Aberd.,
Consulting Physician, late Physician and Lecturer on Clinical Medicine and Anæsthetist, to the Aberdeen Royal Infirmary.

San Remo, Italy, Dec. 2nd, 1901.

MEDICAL BIBLIOGRAPHY.

To the Editors of THE LANCET.

SIRS,—With reference to the apprehended discontinuance of the *Bibliographia Medica* referred to in THE LANCET of Dec. 7th, p. 1611, the following quotation from the *Journal of Balneology and Climatology*, January, 1900, p. 68, may be useful: "From Paris, 93, Boulevard St. Germain, we have received a circular announcing that the work of the index will be carried on by a French firm under the name of *Bibliographia Medica*—sur le modèle de l'Index Medicus Américain—the first LUMBER is to appear immediately." There is, of course, the *Medical Review*, London.

I am, Sirs, yours faithfully,

CHARLES G. STUART-MENTEATH.

Upper Bedford-place, London, W.C., Dec. 9th, 1901.

*** The first number (that for January, 1900) of the *Bibliographia Medica* was noticed by our Paris Correspondent in THE LANCET of March 3rd, 1900, p. 660.—ED. L.

THE ORGANISATION OF THE PROFESSION.

(FROM OUR SPECIAL COMMISSIONER.)

The Early History and Formation of the Birmingham and District General Medical Practitioners' Union.

THE thoughtful student of history will not fail to observe that revolutions, especially the more successful revolutions, have originated from the higher classes and not, as is too hastily supposed, from the lower classes. It is when the pinch is felt by at least a section of the governing classes that the situation becomes dangerous. The great French revolution was in a large measure the work of the encyclopædists who belonged to the best educated classes and were patronised by a considerable section of the aristocracy, while such men as Mirabeau and St. Just were members of the nobility. So also in smaller movements the same rule applies, and has yet again been demonstrated by recent occurrences at Birmingham. Here the medical profession were in a deplorable position. The grievances denounced under the heading of "The Battle of the Clubs"[1] and of "Hospital Abuse"[2] set forth the details of the prevalent unfair competition, the spread of abuse under the mantle of pretended charity, and the sweating of members of the profession by lay speculators. These articles also pointed out how the marvellous success and skill shown in organising the Hospital Saturday Fund had brought into existence a power stronger than that of the trade unions which might largely control the management of the hospital and other charities and seriously interfere with the interests and position of the members of the medical profession. On the other hand, there was little or nothing to indicate the existence of any countervailing force capable of holding in check these menacing developments. What few efforts had been made at organisation by the medical men of Birmingham had rapidly collapsed without bearing any fruit. Indeed, the despondent tone of many of the local practitioners and consultants with whom I discussed these questions at the time led me to conclude that there were special psychological influences in Birmingham which rendered the work of organising the medical profession more difficult there than in many other towns and centres. Now that it is proposed by the British Medical Association to organise its members everywhere throughout the kingdom on the same basis, it becomes of increasing and of practical importance to observe how the difficulties and facilities vary from

[1] See THE LANCET, Jan. 4th (p. 69) and 18th (p. 199), 1896.
[2] See THE LANCET, July 31st (p. 284), August 14th (p. 415), and Sept. 4th (p. 622) and 18th (p. 745), 1897.

place to place. In respect to organisation, Birmingham presented, it seemed to me, the same disadvantages as does a new and prosperous colony. It was peopled to a large extent by men who had rushed in from the outside, who had no local ties, who did not desire to make the town their permanent home, or who came exclusively for the sake of higher wages and better monetary prospects. Where there is an abnormal rush for wealth the work of organisation is always difficult, and, as a case in point, trade unionism is much weaker in the United States of America than in England; it is likewise weaker in Birmingham than in other parts of the kingdom where the local industries have developed in a more stable manner. Or, to give a wider example, the rapid growth of modern industrialism and commercialism throughout Europe broke up the ancient guilds. These considerations led me to say[3]: "Among such a population it is difficult to spread altruistic ideas; it is a wild endeavour all round after business each for himself, and but few pause to consider what are their duties to society. This spirit also animates more or less—let us hope very much less—the medical profession and therefore it has been more particularly difficult to group the medical men together and to get them to put their personal interest in the background so as to defend the position of the profession as a whole." The remarks gave offence at the time to a prominent member of the profession practising in Birmingham, but the only argument that he adduced really tended to prove my contention. He urged that such great public spirit had been shown by the inhabitants that Birmingham had acquired the reputation of being the best governed city in the world. Undoubtedly the municipality of Birmingham has been induced by its electors to take the initiative in respect to several very important public enterprises. It will, however, be noticed that wherever voluntary organisation is weak there will be found the loudest demands for State or municipal interference. The workers of England, as compared with the workers of the continent, have been the last to demand State interference in regard to their economic conditions; but then they possess the strongest and best organised trade unions. On the other hand, the members of the medical profession are as yet but feebly organised, and therefore on all sides it is urged that the General Medical Council should interfere or that the law should be enlarged so as better to protect the profession. In these economic questions medical men are not different from other classes of the community. The lessons of history apply to them as to other mortals, and they must likewise yield in some degree to the social influences by which they are surrounded. It is very certain that medical men after a prolonged residence in such towns as Eastbourne or Yarmouth will have ideas different from those entertained by practitioners who have lived in centres of commercial and manufacturing enterprise such as Glasgow or Birmingham. It should be possible to study and to record such differences without giving offence to anyone.

Fortunately, within the last two years so great a change has taken place in Birmingham that it may be qualified as being, in its way, quite a little revolution. Though insisting that the economic conditions prevailing in Birmingham were not favourable to the work of organisation, I nevertheless gave a very lengthy account of the widespread and skilful organisation of the Hospital Saturday Fund. In this I did lay myself open to a charge of inconsistency, but my critic failed to see this point. The explanation of such a contradiction rests on the fact brought forward in my opening remarks that revolutions often come from a class above that mainly affected. It was not the people concerned, it was not the poor and the working classes who organised the Hospital Saturday Fund. Its present success is due mainly to the eloquence, indomitable energy, and consummate organising capacity, not of a workman, but of Mr. Smedley, who is an accountant. Alderman Cook and other gentlemen and business men have also helped in the task, and what the workmen are now able to do for themselves is due to the teaching which they received from those who stepped out of a higher class to help them. The Hospital Saturday Fund, which started in 1874, was at first merely a collection made principally among working-men on a certain day in the year. During the first years the sums raised varied from a little more than £3000 to a little less than £5000. It was not till after 1885, and when Mr. Smedley appeared on the field, that the whole system of collection was altered and so extended that five years later, in 1891, the amount collected had more than doubled, and was equal to £11,000. The collection made on Hospital Saturday represents but a small fraction of the total sum obtained, which now exceeds £18,000. This is gathered in by penny weekly collections enforced by social and moral pressure in nearly all the factories and workshops of Birmingham. When I wrote last on the subject I pointed out that in 1895 the medical charities, the hospitals of Birmingham, had a yearly income of about £45,000 including the £10,000 given by the Hospital Saturday Fund, and that, with the balance remaining, this fund had already organised convalescent homes and nursing institutes of its own. It then occurred to me that if the Hospital Saturday Fund were to withdraw its support the hospitals would be on the verge of bankruptcy. Circumstances might arise which would lead the managers of this fund to prefer to establish hospitals of their own, under their exclusive management, with a paid staff, just as they had already successfully done with regard to their own convalescent homes. The existing hospitals would then be in sore difficulties and to prevent such a contingency many concessions had to be made.

This, however, has not yet been attempted, but the proposed creation of the Consultative Institute was a step in this direction. Not content with possessing its own convalescent homes and its own trained nurses the committee of the Hospital Saturday Fund determined to have its own staff of consultants. Again this was a movement that did not spring from the workmen but from a class above them. It was not the suggestion of the workman; it was a proposal originally made by Mr. Arthur Chamberlain. This gentleman, who is a wealthy local manufacturer and company director, was one of the leading members on the committee of management of the Women's Hospital. Nor does he seem in this matter to have been at first particularly concerned about the working classes and the poor generally. On the contrary, he had for a long time been using his best endeavours to persuade the staff of the Women's Hospital to give advice to a better class of patients. Anxious, perhaps, to increase the income of the hospital he proposed that the better class of patients should be charged a fee of 5*s.* and that half of this sum should be paid to the medical staff and the other half reserved to help in covering the working expenses of the hospital. But to the honour of the medical staff it must be recorded that they repudiated this essentially commercial proposal. They were not willing to be thus employed as instruments for competing against their brothers in the profession. The hospital to them remained a charitable institution and not a commercial enterprise. It was after the failure of this scheme that Mr. Arthur Chamberlain addressed himself to the committee of the Hospital Saturday Fund and urged that they should form a consultative institute. So great, apparently, was Mr. Arthur Chamberlain's desire to bring the members of the profession, and especially the consultants, under the thraldom of commercial laws and methods that he even offered to be personally responsible for half the financial loss if the enterprise failed to pay its expenses. The idea was that a staff of consultants should be appointed as the servants of the institute at a salary of £500 per annum. The outlay was to be met by half-guinea fees which the patients were to pay, not to the medical men, but to the institute for each consultation. Of course, if such an institute possessed a competent medical staff private consultants would lose many of their patients who actually paid their guinea fees and could well afford to do so.

Thus, most fortunately for the interests of the profession at large, a blow was aimed not, in this instance, at the poor and underpaid general practitioner, but at the highest, most prosperous, and best paid medical men. The great difficulty in the work of organisation has been due to the indifference and the ignorance of the more prosperous medical men, and notably of the consultants. They often do not know or have forgotten what the poorer general practitioners have to endure. The battle of the clubs does not affect them because they have no club patients. They likewise are not deeply concerned in the abuse of hospitals, for if sufferers go there who can pay 1*s.* 6*d.* or 2*s.* 6*d.* in fees these are not the class of patients whom the consulting physicians or surgeons of the hospitals are in the habit of attending. Therefore the economic difficulties that beset the

[3] See THE LANCET, July 31st, 1897, p. 234.

majority of the profession do not affect the few who are exceptionally prosperous. Consequently, the latter have no personal need of joining militant medical unions formed to deal with these economic problems, and this has always been one of the greatest obstacles in the way of the organisation of the profession. Here, however, in Birmingham the interference of Mr. Arthur Chamberlain has most happily removed this very serious stumbling-block. He has provided a grievance where no grievance existed, and thus has brought into line the very men who were the most difficult to move. There were about 50 medical men in Birmingham who claimed to be consultants or specialists, and they at once determined to make a stand against the formation of the proposed Consultative Institute. They met together, they appealed to the Lord Mayor to intercede between them and the Hospital Saturday Fund Committee, and they explained that they were themselves quite willing to give advice for half a guinea to poor persons who could not afford to pay more. Indeed, this was already a very usual practice; therefore there was no need of a consultative institute unless to obtain advice at a cheaper rate for those who could afford the guinea fee and to convert independent medical men into the paid servants of an institute managed by a lay committee. But in taking such action the consultants felt that they needed the support of the whole profession. Therefore they summoned a general meeting at which it was decided that anyone who accepted service in the pay of the Consultative Institute should be boycotted by the whole profession. Thus brought together, however, the medical practitioners of Birmingham were not content to discuss merely the question of the Consultative Institute. This was a grievance which concerned more especially the consultants, but the general practitioners had grievances of their own just as urgent and far more numerous. They were quite ready to act in union to defend the interests of the consultants, but they also, and very naturally, desired to employ the force thus acquired in defence of their own interests. Hence it came about that a proposal was made to found a permanent medical union dealing with all questions affecting the economic and ethical interests of the profession. The first meeting—a comparatively small one—was held at the Victoria Hall, Aston, and it was then resolved to summon all the general practitioners within a radius of five miles to meet at the Grand Hotel, Birmingham, so as to decide whether a union should be established. About 100 practitioners attended this second meeting. The proceedings were throughout most enthusiastic, and it was then resolved to form the Birmingham and District General Practitioners' Union. A committee was elected to draft rules and as a result the new society was formally constituted on Oct. 1st, 1899. The second annual meeting held by this union has already been described [4] and it was then stated that it numbered 253 members. The work of organisation has, therefore, at last proved successful even in Birmingham. To me, who saw and described four and five years ago the state of disunion and chaos that then prevailed in the ranks of the profession, this great change appears in the light of a small revolution. But, as I remarked in my opening observations, it is a revolution that originates from the higher ranks of the profession. It was not till the consultants had put their shoulders to the wheel and given the necessary impetus that the movement gathered strength and became really successful. The dual principle, action and reaction, finds in these events another illustration of its truth. But for Mr. Arthur Chamberlain's interference in the affairs of the medical profession the state of disunion prevailing in its ranks might have continued to this day. The action which he took on one side produced reaction on the other side, and thus the Birmingham and District General Medical Practitioners' Union has been called into being.

(To be continued.)

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Another Liverpool Expedition to West Africa for the Study of Malaria.

Dr. Charles Balfour Stewart sailed from Liverpool for West Africa on Nov. 30th, under the auspices of the Liverpool School of Tropical Medicine, to investigate further the causes of malaria. He will proceed at the outset to Sierra Leone, in order to study the methods at present adopted there with such success by Dr. Logan Taylor. He will first attack the disease in the town of Cape Coast Castle, where there is now a considerable mortality amongst Europeans. He will have full charge, under Major R. Ross's directions, of the operations on the Gold Coast. The *modus operandi* will be that of drainage of the ground and clearing out broken vessels which may hold water by means of large gangs of native workmen, as is done in Freetown, and by other means to effect sanitary improvements. Dr. Stewart has been engaged by the Liverpool School for one year, but he will probably remain as long as his services are needed to carry on the important work on the Gold Coast. The health conditions of the gold-mines will be a further object of his attention, as the school authorities have instructed him to visit the mining districts where possible. His movements, however, will be largely determined by the wishes of the Governor of the Gold Coast. Efforts for the eradication of malaria will thus shortly be general all along the West Coast of Africa from Gambia to Lagos, three of these colonies, Gambia, Sierra Leone, and the Gold Coast, being dealt with by the Liverpool School of Tropical Medicine. Dr. Stewart has done important work in India in the matter of plague. He also acted as assistant to M. Haffkine at the malarial research laboratory at Bombay.

The Proposed Fellowship for the Promotion of Physical Research at University College, Liverpool.

Mrs. George Holt and Miss Holt have generously made the offer to the council of University College to found a Fellowship to promote research in physics to be associated with the name of Dr. Oliver Lodge, the late Professor of Physics at the College, in commemoration of his services to the College, to the city, and to science. The Fellowship will be tenable for one year, re-election being allowed, but it may not be held by one person for more than three years in all. Its annual value will be £100, or more. A prize to be called the "Oliver Lodge Prize" has also been established by Dr. Lodge's friends and late colleagues, to be awarded annually to the best student in physics in the third year of the honours course. Both offers have been gratefully accepted by the council. Detailed plans and specifications for a new laboratory for the department of physics, now in charge of Professor Wilberforce, will be shortly placed before the council of the college for their approval.

Memorial to the late Sir Henry Tate, Bart.

The Dowager Lady Tate has given a donation of £1000, in memory of her late husband, Sir Henry Tate of Liverpool, to the Queen Victoria Jubilee Institute for Nurses, to be added to the sum given by her late husband which is used for the benefit of the Queen's nurses themselves in times of sickness.

Liverpool Boards of Guardians and Epileptic Patients: Proposed Conference.

Provision for the proper accommodation of sane epileptics is urgently required at the three Liverpool workhouses, present conditions being altogether inadequate and unsuited to the treatment of that class of patients. The matter has been the subject of frequent discussions of late at the three boards of guardians of Liverpool, Toxteth, and West Derby. The Blackburn Union have addressed a communication to the three boards of guardians, asking them to send representatives to a conference of Lancashire unions to be held, if possible, in Blackburn, to discuss the entire question. The Liverpool Select Vestry and the Toxteth Board of Guardians have decided to agree to the request. I have not been able to discover the intentions of the West Derby Board in the matter.

The Lancashire Asylums Board.

At the recent annual meeting of the Lancashire Asylums Board held in the County Hall, Preston, the chairman (Alderman W. S. Barrett) moved the adoption of the report of the deputation appointed to wait on the Commissioners in Lunacy with reference to the board's agreement that the Winwick Asylum should be wholly devoted to chronic cases and filled exclusively by transfer from the other asylums. The report stated that the deputation urged that chronic cases should be allowed to be sent direct to Winwick Asylum from workhouses or their own homes, thus avoiding the expense of first sending them to one of the other

[4] THE LANCET, Nov. 30th, 1901, p. 1536.

asylums. The Commissioners, however, contended that if chronic patients were received into Winwick Asylum direct advantage would be taken to send patients other than chronic and for whom there was no proper accommodation, thus placing the medical superintendent in the invidious position of having to decline to admit them. That being so, they could not see their way to alter the original agreement.—Mr. H. R. Ley, the medical superintendent at Prestwich Asylum, has resigned owing to failing health.—Mr. F. Perceval, the medical superintendent at Whittingham Asylum, has been transferred to Rainhill.

The Dangers of Wearing Flannelette.

Presumably on account of the alarming number of recent deaths of children in Liverpool owing to the ignition of flannelette garments, the Watch Committee have received a communication from the Home Office calling attention to the frequent fatal burning cases which took place in the city through the ignition of young children's clothing. The matter was referred to the Fire Police Sub-Committee for consideration.

Dec. 10th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

Isolation Accommodation in Herefordshire.

THE special industries of Herefordshire—hop-growing and fruit-culture—attract to the county during two or three months in each year several thousands of the poorer classes from the populous towns in the neighbouring counties of Staffordshire and Warwickshire. The risk of infectious diseases being introduced is therefore very much greater than in rural districts where no such immigration takes place. In the whole of Herefordshire only one sanitary authority has deemed it necessary to provide a permanent isolation hospital, and the county council has taken no steps, as it is empowered to do by the Isolation Hospitals Act, 1893, in the direction of ascertaining whether sufficient isolation accommodation exists in the county. On Dec. 7th a discussion took place at a meeting of the Hereford Rural District Council upon a proposal which was made by the chairman of the board of guardians to establish three cottages in different parts of the district into which infectious cases could be removed. The novelty of the scheme lay in the suggestion that when the nurses, who would live in the cottages, were not occupied with nursing cases of infectious disease their services should be available either as district nurses or as workhouse nurses. It is to be regretted that the proposal was not accepted, and a very heavy responsibility will rest upon those members of the council who opposed it if they do not assist in some way in providing means for isolating infected persons in the district.

Swansea General Hospital.

The board of management of the Swansea General Hospital decided on Dec. 4th to erect a second theatre for minor operations at a cost of £200. Further alterations, which it is estimated will cost £1300, were also resolved upon. These include two isolation wards, additions to the nurses' home, a rearrangement of the dispensary, and a detached out-patient department having two consulting-rooms, three dressing-rooms, a nurses' room, and a waiting-room to accommodate 100 persons.

Colwyn Isolation Hospital.

The Colwyn Bay Urban District Council has decided to erect an isolation hospital at a cost of £5700. The buildings will include a separate administrative block and two ward pavilions having a total accommodation for 16 patients.

Cardiff Water-supply.

Nearly the whole of the water for the supply of Cardiff and Penarth is obtained from the Breconshire hills and the decreased rainfall on the gathering grounds during the present year has materially diminished the amount of water in the reservoirs. In November a rainfall of only four inches was recorded, or exactly one-half of that recorded during November, 1900. The total storage capacity amounts to 1,000,000,000 gallons, and in May of this year there were in the four reservoirs 970,000,000 gallons, an amount which was reduced by Dec. 1st to 796,000,000 gallons. The total daily consumption averages 5,000,000 gallons, equal to about 27 gallons per head of the population. Although Cardiff is practically a town provided with water-closets, there are a large number of houses without a flushing apparatus.

Water-supply of Glamorganshire.

The Sanitary Committee of the Glamorgan County Council has instructed the county medical officer of health to report in June next upon the water-supplies of the county. The only complete report hitherto made has reference to the Rhondda district, where there is a population one-fifth that of the whole county, and was compiled by the medical officer of health for that district. In some of the colliery districts the supply is lessened owing to the subsidences which have taken place through the working of the mines, so that gathering grounds which formerly produced large quantities of water are now of comparatively little value.

Dec. 10th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Victoria Infirmary, Glasgow.

THE annual report of the governors of the Victoria Infirmary, which was issued on Dec. 3rd, gives satisfactory evidence of the activity and efficiency of the institution. The only qualification is provided by the balance-sheet, which shows a deficit for the year amounting to over £3500. To meet this it has been necessary to draw upon legacies and other sums which belong more properly to the capital account. The year has been marked by the erection of a new pavilion which provides several small wards for isolation purposes, two additional operating-rooms, a laboratory, and a room for the treatment of skin diseases by the Finsen and other allied forms of treatment. The expense of the appliances for this last-mentioned purpose, as well as the provision of a complete installation of a Roentgen-ray apparatus, has been undertaken by Mr. Archibald Walker, a member of the committee of management. The governors draw attention to the fact that the requests for admission to the hospital continue to be far in advance of the accommodation afforded, the numbers waiting for admission frequently reaching the total of 100. In these circumstances they express the opinion that the extension of the hospital must soon be undertaken. The building of a new wing will cost, it is estimated, from £25,000 to £30,000, and an appeal for this sum will shortly be made to the public. A further expense which cannot long be avoided is the provision of a new out-patient department, the demand for which is becoming increasingly urgent. At the annual meeting on the motion of the Lord Provost the report was adopted. A new feature of the management was provided by the election of two ladies to the governing board. This point at one time threatened to produce some degree of controversy, but in the end unanimity was secured and the ladies were appointed with enthusiasm.

Glasgow Royal Infirmary.

It is announced that, thanks to the generosity of a few gentlemen, the Royal Infirmary has been presented with a new and complete installation of medical and surgical electrical apparatus. The equipment of the hospital in this direction has for some time been well above the average, mainly owing to the special interest taken in the department by one or two members of the staff. The new installation will include arrangements for obtaining both high-potential and high-frequency currents as well as apparatus necessary for the treatment of lupus by various forms of light rays. Finsen's method has been for some time in operation at the hospital and both it and the x-ray and other electrical methods are to be presented in their most modern form. The whole installation has been arranged so that it can be transferred to the new hospital whenever that building is ready for its reception. The office of superintendent to the infirmary is advertised as about to become vacant. The salary is to be £500 per annum, with board and free house, coals, and light.

Glasgow New Small-pox Hospital.

The proposal to erect a new small-pox hospital at Lethanmill appears likely to lead to some controversy. At a recent meeting of the district committee of the Lanark County Council it was pointed out that the site of the hospital was in close proximity to the reservoir from which a large district, involving some of the Glasgow suburbs,

receives its water-supply. During the discussion some very energetic phrases were applied to the corporation's proposal, and it was agreed to communicate to the Local Government Board an expression of the committee's disapproval of the selected site.

Dec. 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The late Mr. William Smyth, L.R.C.S. Irel., of Burton Port.

THE melancholy death of Mr. W. Smyth of Burton Port and Arranmore Island from typhus fever has given rise to a feeling of admiration for his heroism and of widespread sympathy with his family, left poorer by his loss. While conveying some fever-stricken patients in an open boat over the four miles which separate the island from the hospital on the mainland Mr. Smyth contracted typhus fever from which he died. A subscription list, headed by the Presidents of the Royal College of Physicians of Ireland and the Royal College of Surgeons in Ireland, has been opened and many donations have already been received. Letters of sympathy, with subscriptions, have also just been received from His Excellency the Lord Lieutenant, His Eminence Cardinal Logue, and His Grace the Duke of Abercorn. A sum of over £400 has already been subscribed in Belfast.

Honours to the Irish Hospital Corps.

On Dec. 7th his Excellency the Lord Lieutenant formally presented medals to the Irish Hospital Corps who have recently returned from South Africa. The members of the corps assembled in the Upper Castle Yard, under the command of Sir William Thomson, their surgeon in-chief. The Lord Lieutenant, who was accompanied by the Duke of Connaught and Lady Cadogan, delivered an interesting address in which he highly praised the staff of the hospital and the work which they had accomplished at the seat of war, expressing at the same time his regret at the unavoidable absence of Lord Iveagh, to whose magnanimity and benevolence the organisation of the hospital was entirely due. His Excellency took the opportunity of calling attention to the brilliant services of the late Sir William Mac Cormac during the time of war and alluded pathetically to the self-denying work recently performed in Ireland by Mr. William Smyth of Donegal "who met his death the other day under such painful and yet under such glorious circumstances." Sir William Thomson, in reply, thanked his Excellency on the part of all the members of the corps, and conveyed the apology of Lord Iveagh for his quite unavoidable absence. The members of the surgical and medical staff who received decorations were: Sir William Thomson, Mr. G. Stoker, Dr. Coleman, Dr. Friel, and Dr. Thomas Edwards.

The Ulster Medical Society.

The second public meeting of the session 1901–1902 was held in the Belfast Museum on Dec. 5th, the President, Professor W. Whitla, M.D., occupying the chair.—Dr. W. B. M'Quitty showed two patients suffering from Myxœdema and gave details of three cases illustrated by photographs showing their condition before and during treatment.—Dr. A. Fullerton read notes of a case, illustrated with photographs, of a child with Penile Hypospadias and Cleft Scrotum and discussed the surgical treatment.—Professor J. L. Smith and Dr. J. S. Darling showed the Kidneys and Bladder from a case of Enlarged Prostate.—Dr. V. G. L. Fielden showed an apparatus for the Continued Administration of Nitrous Oxide and Oxygen.—Dr. T. S. Kirk described a Modification of Thiersch's Method of Skin-grafting.—Dr. Charles O'Neill read a paper, illustrated with lantern slides, on the Biological Purification of Sewage.—In the discussions on these communications the following took part: the President, Dr. A. B. Mitchell, Professor J. W. Byers, Dr. W. Calwell, Dr. A. Dempsey, Dr. J. Rusk, and Dr. H. O'Neill.

The Royal Victoria Hospital, Belfast.

The shareholders of the Oceanic Steamship Co. (better known as the "White Star" line) have decided to honour the memory of Mr. T. H. Ismay, the late chief of the line, by giving £10,000 to the Liverpool Seamen's Pension Fund (which was established by Mr. Ismay in 1887), and also by giving £10,000 towards the endowment of a ward in the Royal Victoria Hospital, Belfast, to be called the "Thomas henry Ismay Ward." By these two munificent gifts the connexion of the "White Star" line with Liverpool (where the head offices of the company are located) and with Belfast (where, in the great yard of Hartland and Wolff, the ships of the line were built) is emphasised. Shortly before his death Mr. Ismay was made an honorary freeman of Belfast.

Queen's College, Belfast.

Professor J. Symington has been appointed registrar of Queen's College, Belfast, in place of Professor J. H. Purser, resigned.

Belfast District Lunatic Asylum.

In his report as inspector of asylums Sir G. P. O'Farrell points out that at the day of his visit there were 713 patients at Belfast, 150 at Purdysburn, and 62 at Ballymena; and inasmuch as the old asylum only provided legitimate accommodation for 440 patients it would be evident how greatly overcrowded the institution was, and it was only by the excellent administrative arrangements and by keeping the patients as much as possible in the open air that this serious overcrowding had not prejudicially affected the health of the inmates. The committee had arranged to meet this overcrowding to some extent by building two villas on the Purdysburn estate. Sir G. P. O'Farrell says that he was pleased to find every part of the asylum clean and orderly. The dietary was satisfactory and suitable to the needs of the patients, and the amusement of the patients continued to receive due attention. Dr. R. A. L. Graham, the junior assistant medical officer, continued to take great interest in pathological work. The medical books were carefully kept and the general management of the asylum, the inspector reports, bore distinct evidence of the zeal and ability of the medical superintendent (Dr. W. Graham) in the discharge of his duties.

The late Sir William Mac Cormac.

The greatest sorrow was felt in Belfast on Dec. 4th, when the very sudden death at Bath of Sir William Mac Cormac was announced. His close connexion with Belfast was brought out in your full obituary notice.—At a meeting of the Ulster Medical Society held on Dec. 5th, on the motion of Professor Byers, seconded by Dr. Dempsey, the following vote of condolence was passed in silence and ordered to be entered on the minutes of the society and a copy to be sent to Lady Mac Cormac:—

That the members of the Ulster Medical Society desire to take this the earliest opportunity of expressing their great regret at the loss they have sustained through the sudden death of Sir William Mac Cormac, Bart. Originally an ordinary, and afterwards an honorary, member of the Ulster Medical Society, he took the deepest interest in its affairs and the members have followed with pleasure and pride the successive stages of his brilliant career since he left Belfast. The son of a distinguished Belfast medical man, Sir William Mac Cormac always maintained the highest traditions of the profession. The members of the Ulster Medical Society wish to express their sincere sympathy with Lady Mac Cormac in her present deep trial.

At a meeting of the board of management of the Royal Victoria Hospital held on Dec. 7th, on the motion of the Chairman (Mr. William Crawford), seconded by Professor Byers, a vote of condolence was passed with Lady Mac Cormac on the death of her distinguished husband who had been house surgeon, surgeon, and consulting surgeon at various times to that institution.

Dec. 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Reports upon Epidemic Diseases.

AT the meeting of the Academy of Medicine held on Nov. 26th M. Landouzy read the report of the commission upon epidemic diseases. The report laid great stress upon the absolute incompleteness of the returns furnished by the various prefects. The figures which are given as to the different contagious diseases, in conformity with the law of 1892, are very incomplete, and most of the reports give no statistics either as to the incidence of a disease or its fatality. Influenza is responsible for a large number of deaths by reason of complications involving suppurative affections. Cerebro-spinal meningitis is fairly common, but small-pox is rare and almost unknown in certain districts, as for instance Bordeaux, where vaccination is rigorously carried out. Wandering pedlars have imported this disease into certain districts and

M. Landouzy maintained that vaccination and revaccination should be carried out in the case of such persons. The death-rate from diphtheria has fallen considerably, thanks to the very early use of Roux's serum. A certain number of cases of typhoid fever are put down to infection by the inhalation of dust. The report further draws attention to the necessity for distributing information as to general and personal hygiene in all scholastic establishments. The report also asks for the creation of a sanitary inquiry into the health of both the civil and the military sections of the community. Information on these points is much wanted to prevent the spread of disease by patients who leave the hospitals before they are completely cured. For instance, when a tuberculous patient is allowed to return home his family ought to be told of the various measures necessary to prevent him from becoming a focus for the spread of the disease. Three very interesting reports were sent in by Dr. Kermorgan, Inspector-General of the Colonial Medical Service. One dealt with yellow fever in Senegal, one with tuberculosis in the colonies, and the third with infectious disease in the colonies.

The Physiological Effects of Balloon Ascents.

At the meeting held on Nov. 25th M. Gaule laid before the Academy of Sciences the result of some researches which had been undertaken by himself with a view to ascertain whether the results of a balloon ascent were comparable with those obtained at a high altitude on land—e.g., at the top of a mountain. The most notable of these is a marked augmentation in the number of red corpuscles. Viaux and sundry observers who followed him have ascertained that at a high altitude there is a great increase in the number of red corpuscles. Thus in the Cordilleras at a height of 4000 metres, Viaux found 8,000,000 red corpuscles per cubic millimetre. M. Gaule wished to see whether in a balloon ascent, where ascension is very rapid and entails no muscular exertion, a similar phenomenon would occur. He made two investigations at heights of 4200 and 4700 metres and found in himself 8,000,000 red corpuscles per cubic millimetre. Further, M. Gaule at a height of over 4000 metres made some blood-films stained after Ehrlich's method with eosin and hæmatoxylin. He found numerous red corpuscles which showed a nucleus coloured blue by the hæmatoxylin. This nucleus was in many instances segmenting, and also groups of three or four corpuscles were seen as if they had undergone subdivisions. Similar preparations made before the ascent showed no such appearances. M. Gaule therefore considers that at high altitudes there is an actual formation of red corpuscles and that this takes place with great rapidity. At the following meeting M. Tissot and M. Haillon gave an account of researches on a somewhat analogous subject. On Nov. 21st they undertook some researches at various altitudes into the physics and chemistry of the respiration. Experiments were made at the following heights: 1350 metres, 2600 metres, and 4450 metres in the case of M. Tissot, and at 1700 metres and 3500 metres in the case of M. Haillon. The chemical phenomena of the respiration did not vary appreciably at these different altitudes. The respiratory rhythm, however, was greatly modified. Although the total quantity of air entering the lungs was less the number of respirations was not sensibly altered. It would thus appear that at high altitudes the air is purer and more completely used.

The Fatal Accident at the Lariboisière Hospital.

I have already acquainted your readers[1] with the details of the fatal accident at the Lariboisière Hospital, owing to the mistake of a nurse who administered chloride of zinc as an enema. The court of first instance has sentenced the matron of the hospital to two months' imprisonment and the director of the hospital to 15 days' imprisonment as being responsible for the accident, with right of appeal in both cases. The nurse was given three months' imprisonment, also with right of appeal, but she accepted the sentence. The ninth division of the Court of Appeal, before which came the cases of the matron and the director, has just delivered judgment. The nurse alone was considered guilty. The judgment stated that the vessel from which the nurse drew the fluid employed for the enema was labeled "chloride of zinc" sufficiently legibly for the court to read it, and that the error was that of the nurse alone. The matron and the director were acquitted.

Dec. 10th.

[1] THE LANCET, April 20th, 1901, p. 1174.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Agglutination of Tubercle Bacilli and its Diagnostic Value.

AT a meeting of medical officers of consumption hospitals Professor Koch recently read a paper on the Agglutination of Tubercle Bacilli and its Diagnostic Value. In this paper, which has been published in the *Deutsche Medicinische Wochenschrift*, he said that cultures of the bacilli of enteric fever, cholera, and bubonic plague agglutinated by the addition of blood serum of patients suffering from these diseases and that this fact was of great diagnostic importance. Dr. Arloing and Dr. Courmont had described a method of causing tubercle bacilli to become agglutinated, provided that they had been cultivated on potatoes, but their method had not proved to be trustworthy. Professor Koch therefore proceeded in another way, of which the following is an outline. The essential is that weighed quantities of pulverised cultures of tubercle bacilli are mixed with a solution containing 0·5 per cent. of carbolic acid and 0·85 per cent. of sodium chloride and then diluted with the same fluid to 1000 times the weight of the dry culture. This test fluid is agglutinated only by the serum of a tuberculous animal, the serum of non-tuberculous animals having no influence on it. The agglutination is especially marked when one part of serum is mixed with nine parts of test-fluid, but is perceptible when one part of serum is mixed with 150 parts of test-fluid. Professor Koch then examined the blood serum of different species of animals. He found that in 28 normal rabbits out of 30 the serum had no agglutinating action; the same was the case in goats, asses, dogs, and cattle, with which in only very few instances did agglutination take place. The blood serum of horses, 10 of which were examined, showed considerable spontaneous agglutinating power in mixtures of one part of serum with 25 and even with 50 parts of test-fluid. He then experimented on the artificial increase of the agglutinating power of the blood serum. The serum of goats which had been injected subcutaneously with cultures of tubercle bacilli showed after a few injections agglutination when the proportions of serum and test-fluid were 1 to 50 and even 1 to 100; with rabbits the proportions varied between 1 to 100 and 1 to 400; and with horses the proportions were 1 to 200. Professor Koch said that he had reason to believe that animals in which the agglutinating action was increased by injections of tubercle bacilli were at the same time immunised; so that the degree of the agglutination corresponded to the degree of the immunity obtained. The experiments on this subject were, however, not yet finished. He then injected serum of high agglutinating power into tuberculous patients in the hope of obtaining a curative effect, but hitherto without any satisfactory result. He found that the serum was unable to agglutinate the bacilli of diphtheria, enteric fever, and bubonic plague, but that the bacilli of *perlsucht*, tuberculosis of fowls and of fishes, and butter bacilli, which when stained showed the same resistance to acids as tubercle bacilli, were agglutinated by it. Conversely, when animals were immunised by injections of this kind of bacilli their serum was able to agglutinate the bacilli of human tuberculosis. Professor Koch then examined the blood serum of tuberculous and non-tuberculous persons. Among 30 non-tuberculous persons there were five whose serum had an agglutinating power; among 78 consumptives there were five whose serum caused agglutination when mixed with test-fluid in proportions of 1 to 50 or 1 to 25, and there were 14 whose serum acted similarly when the proportions were 1 to 10. There was, in fact, no very marked difference between the serum of both categories and the method was therefore of no use for the diagnosis of tuberculosis. Attention was then drawn to the fact that in the advanced stages of tuberculosis the agglutinating action did not increase, as was the case in plague, enteric fever, and cholera. The cause was, in his opinion, that in the latter diseases substances (alexins) were produced in the blood which conferred immunity to subsequent attacks and that it was owing to the alexins that the agglutination of the bacilli took place. In tuberculosis such substances were not present (an infection by tuberculous virus predisposed to subsequent attacks of tuberculosis) and agglutination therefore did not occur. Professor Koch some years ago, as

mentioned in THE LANCET of April 10th, 1897, p. 1057, described a method of obtaining a certain degree of immunisation, and he employed a modification of this method for the purpose of seeing whether the agglutination was thereby increased in tuberculous patients. In the modified method recently adopted the whole quantity of a pulverised culture of tubercle bacilli was injected and the amount injected must be sufficiently large to produce a rise of temperature of from 1° to 2° C., just as with the old tuberculin of 1890. The injections were then repeated at intervals of from six to eight days and the amount injected was increased till it reached from 20 to 30 milligrammes. The result was that the agglutinating power of the serum was considerably increased in this way but that it decreased when a smaller quantity of bacterial culture was injected. If, notwithstanding the increased injection there was a decrease in the agglutination, intravenous injections must be given. Among 75 patients treated in this way it was found that the blood serum of 65 produced agglutination when mixed with quantities of test-fluid varying from 25 to 300 times its weight and that there were only nine the serum from whom gave no result, the patients being all in an advanced stage of tuberculosis. He was of opinion that it was possible to produce in these cases a sufficient quantity of alexins by this method. That the agglutination was really an indication of the immunising action of the injections might be concluded from the fact that with the establishment of agglutination the general health and the objective symptoms of the patients showed an improvement. Fever was not a contra-indication as regards the injections, for in several cases the fever was found to disappear in the course of the treatment. Finally, Professor Koch recommended that the injections should be continued for at least six months, being given at considerable intervals till the tubercle had disappeared from the sputum.

Deaths of Eminent Medical Men.

Professor von Liebermeister, a very distinguished teacher of clinical medicine, died in Tübingen (Würtemberg) on Nov. 24th. Born in 1833 he studied medicine at Greifswald University and after having become qualified was appointed an assistant to Professor Niemeyer, one of the most celebrated clinical teachers of that time, with whom he went to Tübingen, still in the capacity of his assistant, and subsequently became professor of medicine at the University of Basle in Switzerland. After the death of Professor Niemeyer Professor von Liebermeister succeeded him in the chair of clinical medicine at Tübingen which he held till his death. His principal work was on the theory of fever and the treatment of enteric fever. He was one of the first physicians who used the cold-water treatment in this disease. He was also the author of a book on diseases of the liver.—Dr. Löhlein, professor of obstetrics and gynæcology in the University of Giessen, died on Nov. 24th. He was born in 1847 and after having qualified at Berlin he became assistant to the late Professor Schröder, then chief surgeon to the university lying-in hospital. In 1888 he was appointed ordinary professor at Giessen. His published works treated of rachitic conditions of the pelvis, eclampsia, and osteomalacia. It was owing to him that systematic courses of instruction were made compulsory for registered midwives and that homes were established where women could stay after their confinement.

Dec. 9th.

Obituary.

SURGEON-GENERAL ROBERT HARVEY, C.B., D.S.O., M.D., LL.D. ABERD., F.R.C.P. LOND.,

DIRECTOR-GENERAL OF THE INDIAN MEDICAL SERVICE.

IN our last issue we recorded the sudden death at Simla of Surgeon-General Robert Harvey, Director-General of the Indian Medical Service, thus bringing to an unexpected end a varied, brilliant, and successful career, at a moment when his tenure of office was drawing to its close and he was ripe for further distinction and honour. Surgeon-General Harvey was among us in England only the other day, apparently in the best of health and spirits, and ready, able, and willing to bring his keen mind to bear on the important questions raised by the reorganisation scheme of the sister service as it affects the department of which he was the head.

Robert Harvey was born at Aberdeen on March 10th, 1842, being the eldest son of Alexander Harvey of Broomhill, Aberdeenshire, Regius Professor of Materia Medica in the University of Aberdeen. He received his general education under private tutors and began his medical studies at the early age of 16 years, taking out courses of lectures both at Aberdeen University and at Glasgow University; he finally took his degree with honours in 1863.

After graduating Robert Harvey's special abilities as a student secured him an appointment as resident accoucheur to the Birmingham General Dispensary and after holding this post for a year he entered the Army Medical Department, taking the second place among 72 competitors. A purely military career, however, did not offer sufficient attractions to a man of his temperament and versatility and in 1865 he entered the Indian Medical Service, landing in India at the end of that year. Immediately after his arrival he took part in the Bhutan campaign of 1865–66, earning a medal and clasp. From 1866 to 1871 he was residency surgeon to the Eastern Rajputana Agency, in which latter year he volunteered for the Lushai expedition, and on its conclusion he served with the Central India Horse for four years. At the expiration of this period he was appointed civil surgeon of Simla for two years (1876–77) and thus began that brilliant period of civil employment by which probably he will be chiefly remembered in India. In 1878 he was offered, and accepted, the post of Sanitary Commissioner for Lower Bengal, filling up spare time by rescuing from oblivion the valuable records of medico-legal work annually buried in the official returns of that province. In recognition of the value of this work he was in 1879 made a Fellow of the Calcutta University. On the retirement of Dr. Edmonstone Charles in 1880 Robert Harvey was appointed professor of midwifery in the Medical College of Calcutta and obstetric surgeon to the Eden Hospital, then almost completed, an institution which by his energy and devotion he succeeded in making the finest and most beautiful building of the kind in India. As a teacher he proved himself to be clear, forcible, and incisive, showing perfect mastery of the subject in which he had already distinguished himself. At this time he entered on a very successful career of private and consulting practice, for which his kindliness, his tact, and his professional and general attainments rendered him eminently suited, and wealth and honours began now to be showered upon him. In 1882 he was made a Doctor of Laws of the University of Aberdeen, in 1883 honorary surgeon to the Viceroy, and in 1885 an Honorary Fellow of the British Gynæcological Society. In 1889 he obtained the Membership of the Royal College of Physicians of London by examination. For a short time, also, he officiated, in addition to his other duties, as Principal of the Calcutta Medical College.

By that rule which compels a member of the Indian Medical Service at a certain stage in his career, either to resign his commission and the civil duties for which he is perfectly fitted by ability and inclination, or to accept promotion to the administrative grades, Robert Harvey was obliged to give up civil employment and to return to military duty, and he was accordingly appointed principal medical officer at Peshawur in 1890, and from 1891 to 1893 he acted in the same capacity with the Punjab Frontier Force, during which time he took part in the Miranzai and in the Isazai expeditions, being mentioned in despatches and obtaining the Distinguished Service Order. At this period there occurred a severe and fatal epidemic of cholera at Srinagar in Kashmir, and Surgeon-General Harvey was sent to inquire into and to advise regarding it. For this service he received the thanks of the Governor-General of India in Council.

For a short time in 1893–94 Surgeon-General Harvey returned to civil employment as inspector-general of civil hospitals in Lower Bengal, when he was largely instrumental in bringing to a successful issue the project of an International Medical Congress. This congress was held in Calcutta in December, 1894, and he was appointed its president. At this time, also, the Fellowship of the Royal College of Physicians of London was conferred on him. In 1895 he returned to military employment in the capacity of principal medical officer to the Punjab command, receiving the Jubilee medal in 1897, and the Companionship of the Bath in 1898 for the success with which he conducted the medical arrangements for the Tirah campaign in which he took part.

In 1898 Surgeon-General Harvey rose to the highest appointment in the department to which he belonged and of which he had long been one of the most distinguished

officers—that of Director-General of the Indian Medical Service. During his incumbency of this post India was overwhelmed with famine and plague, and the anxiety and work which these combined calamities entailed on the man who was responsible for the efficiency of the medical arrangements not only for the teeming 300,000,000 of the people of India, but to prevent the conveyance of the pestilence from its ports, must have told severely on a constitution at no time robust and which had been weakened by severe illnesses. These labours doubtlessly contributed to the fatal result of that last illness of which intelligence has so recently arrived. Of Robert Harvey it may truly be said that he was ever lavish of his strength, whether the call upon it was made by his friend, by his patient, by his duty, by his department, or by the Government which he served, and that he was ever actuated only by the highest codes of personal and professional honour. He died at his post, honoured, decorated, and regretted.

Surgeon-General Harvey married Emmie Josephine Drayton, daughter of J. Drayton Grimke, of Ashley Grange and Charleston in the United States. He has left a widow, but no children. In accordance with his wish his body was cremated.

HENRY PIERS, M.R.C.S. ENG., L.S.A.,

DEPUTY INSPECTOR-GENERAL OF HOSPITALS AND FLEETS (RETIRED).

DEPUTY INSPECTOR-GENERAL PIERS died at his residence, Burnham, Somerset, on Nov. 30th, in his eighty-fourth year. He received his medical education at Guy's Hospital, taking the qualifications of M.R.C.S.Eng. and L.S.A. in 1840 and 1841 respectively. In 1846 he entered the medical department of the Royal Navy, and served first on the East Coast of Africa, and subsequently in the Arctic Expedition sent in search of Sir John Franklin and his party, and for the discovery of the North-west passage round America. Mr. Piers was on H.M.S. *Investigator* which sailed with H.M.S. *Enterprise* from Plymouth in January, 1850, he being rated as assistant surgeon and Mr. Alexander Armstrong being surgeon. The expedition, as it will be remembered, failed to find Sir John Franklin, but succeeded in discovering the North-west Passage. On his return Mr. Piers received the Arctic medal and afterwards was stationed on the Pacific Coast, chiefly at Vancouver's Island and for a short time in the West Indies. Later, as Deputy Inspector-General of Hospitals and Fleets, he held appointments in Ireland and at Chatham. On leaving the Royal Navy Mr. Piers settled in Burnham where he was highly respected. He was for many years the honorary secretary of the local branch of the Royal National Lifeboat Institution, to which he rendered valuable assistance. The deceased gentleman leaves a son, Major Piers, who is at present invalided home from Cashmere. The funeral took place on Dec. 5th at Barrow Churchyard, near Burnham, amid many tokens of sympathy.

JOHN DAVIES HARRIES, M.R.C.S. ENG., L.S.A.

THROUGH the death of Mr. J. D. Harries from pneumonia on Nov. 29th the medical profession in Shropshire loses one of its oldest and most respected members. Though born in Shrewsbury in the year 1835 Mr. Harries came of an old Pembrokeshire family. After serving an apprenticeship with Mr. Henry Keate of Shrewsbury he entered as a student of King's College and became M.R.C.S. Eng. in 1857 and L.S.A. in the year following. In 1860 he was appointed surgeon to the Salop County Gaol, a position which he held at the time of his death. He was also surgeon to the Shrewsbury Penitentiary, honorary surgeon-extraordinary to the Salop Infirmary, and he took an active interest in the British Medical Association as the representative upon the central council of the Shropshire and Mid-Wales branch. Mr. Davies was on the commission of the peace for the borough of Shrewsbury, a trustee of the borough charities, in the administration of which he was particularly interested, and for 25 years, until 1890, he was a member of the Shrewsbury Corporation.

THE Middlemore Post-Graduate Lecture, an annual lecture under the Middlemore Trust, will be delivered at the Eye Hospital, Birmingham, on Thursday, Dec. 19th, at 4.30 P.M., by Mr. H. Eales, senior honorary surgeon to the institution, who has chosen for his subject, "Some Functional Disorders of Vision."

Medical News.

UNIVERSITY OF CAMBRIDGE.—At the congregation held on Dec. 5th the following medical degrees were conferred:—

Doctor of Medicine.—J. Cropper, Trinity; H. W. P. Young, Gonville and Caius; and S. E. Denyer, G.M.G., Queen's.
Bachelor of Medicine.—A. T. Fraser, Gonville and Caius.
Bachelor of Medicine and Bachelor of Surgery.—F. K. Weaver, Trinity; T. Gillespie, St. John's; and A. C. Ingram, St. John's.

Mr. Edmund Owen and Mr. Mansell Moullin have been appointed Examiners in Surgery and Dr. D. Hood Examiner in Medicine for the current Third M.B. Examination. Mr. H. B. Roderick, Emmanuel, has been appointed Demonstrator of Surgery under Dr. J. Griffiths.

FREEMASONRY.—*Rahere Lodge, No. 2546.*—An ordinary meeting of this lodge was held at the Frascati Restaurant on Dec. 10th. W. Bro. P. S. Abraham, W.M., being in the chair. Mr. Walton R. Read was initiated into Freemasonry. W. Bro. J. Peploe Cartwright, P.G.R. Shropshire, was elected a joining member. Bro. Edge was admitted to the second degree and Bro. Keown to the third degree. The Worshipful Masters of the Middlesex Hospital Lodge, the Chère Reine Lodge, the London Hospital Lodge, and the Cheselden Lodge were elected honorary members of the Rahere Lodge during their year of office. The jewel of a S.G.C. was voted by the lodge to W. Bro. the Rev. Sir Borradaile Savory, Bart., and of a Deputy G. D. C. to W. Bro. Gripper, I.P.M., on the occasion of their appointment to Grand Office by H.R.H. the M.W. Grand Master. A sum of 10 guineas was contributed out of the lodge funds to each of the three Masonic charities. The brethren and their guests afterwards dined together.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—A meeting for medical students was held on Dec. 5th, in the Governors' Hall of St. Thomas's Hospital (by kind permission of the Treasurer). Dr. H. G. Turney, dean of the medical school, presided. In opening the conference he said that he thought the medical profession rather lagged behind public opinion on the subject of temperance. Abroad the reverse was the case. The alcoholic habit was an endemic disease here and was responsible for an amount of disease and death which it was difficult to appreciate. The death certificates in this country did not adequately indicate its extent, but in Switzerland a system of State certification had revealed that during the last 15 years one in 10 males and one in 50 females died from some disease connected with alcohol. In Prussia alone in 1895 over 10,000 people were being treated for the alcoholic habit. This was a problem which it was the special duty of the medical profession to work out. Among those who took part in the discussion which followed were Dr. J. J. Ridge, Dr. C. R. Drysdale, Mr. F. Churchill, and some of the students.

HARVEIAN SOCIETY OF LONDON.—The annual dinner of this society was held on Nov. 28th in the Regent Saloon of the Café Monico. The chair was occupied by Dr. David B. Lees, the President, and 77 members and guests sat down to dinner. Amongst those present were Sir Thomas Barlow, Sir G. Anderson Critchett, Mr. H. G. Howse, Dr. W. H. Allchin, Mr. Howard Marsh, Mr. Alfred Cooper, Mr. Watson Cheyne, Dr. J. Dundas Grant, Mr. G. P. Field, Mr. Edmund Owen, Mr. Noble Smith, and Mr. C. R. B. Keetley. The usual loyal toasts having been proposed by the President, Dr. Allchin, President of the Medical Society, proposed "Success to the Harveian Society," briefly sketching the career of the society from its foundation in 1831 and pointing out the various causes which rendered it such an attractive society.—Dr. Lees responded for the society.—Mr. Keetley then proposed "The Sister Societies" and "Our Guests," drawing a fancy picture of what the profession might become in a few years' time should the members adopt trade union principles in their work.—Mr. Howard Marsh, President of the Clinical Society, responded for the sister societies and Mr. Howse responded for the guests.—"The President" was proposed by Mr. Noble Smith, Dr. Lees replying, and in his speech proposing "The Honorary Secretaries," to which toast the senior secretary (Mr. Hubert C. Phillips) replied.—In the intervals between the

speeches a selection of excellent music under the able direction of Mr. Herbert Schartau was rendered. The artists were Master Harold Davis, Mr. William Fell, Mr. George Stubbs, and Mr. Valentine Hill.

ON Dec. 6th, at the Victoria Hall, Weston-super-Mare, Dr. H. A. Ballance delivered an interesting lecture, entitled, "Experience in South Africa while with the Imperial Yeomanry." The rector (the Rev. Prebendary de Salis) presided and the proceeds are to be devoted to the building fund of the proposed sanatorium at Winsley.

DIPHTHERIA IN GLAMORGANSHIRE.—At the meeting of the Sanitary Committee of the Glamorgan County Council held on Dec. 6th Dr. W. Williams, medical officer of health of the county, reported that at Cwmavon 100 cases of diphtheria had been notified from January to September, with nine deaths, and that at Aberkenfig 38 cases of diphtheria had occurred, of which 13 (or 33 per cent.) had proved fatal.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.—Under the auspices of the Southern Division of the association the autumnal dinner was held at the Café Monico on Dec. 5th. Dr Frederick S. Palmer, the president of the association, was in the chair and about 60 members and guests were present. Music was provided by Mr. F. Peachey, Mr. Aspinall, and Mr. F. Ross, and formed a pleasant feature in a successful evening's entertainment.

VACCINATION PROSECUTIONS.—At Abertillery Police-court on Dec. 6th two parents were summoned to show cause why they had not paid fines, amounting to £2 10s., respectively, imposed in March last, for failing to comply with the Vaccination Act. The local anti-vaccination society defended, and a plea of "conscientious inability" was raised. The magistrates ordered distress warrants to be issued, to be suspended for a month, or in default seven days' imprisonment as first-class misdemeanants.

THE LATE DR. W. ROBERTSON.—The inhabitants of Glanton and district (Northumberland) have erected, by public subscription, a handsome memorial stone in Bolton churchyard to the memory of the late Dr. W. Robertson of Glanton. Dr. Robertson, who died in May last at the ripe age of 80 years, practised for 54 years in the district. He took a great interest in the public affairs of the neighbourhood and was honoured and esteemed professionally and socially by all who knew him. His decease is much regretted.

WORKMEN'S COMPENSATION ACT.—At the Cardiff County-court on Dec. 6th a somewhat singular action was brought under the Workmen's Compensation Act. The plaintiff was a woman whose husband is at present in a lunatic asylum and the defendants were the Mountstuart Dry Dock Company. The man was injured in June last whilst at work on a ship in Roath Dock, but there was no evidence as to the actual accident as he was found unconscious in the hold. Whilst under treatment at the Cardiff Infirmary insanity supervened, probably caused by the accident, and it became necessary to remove him to a lunatic asylum. An order was made by consent for £1 per week during incapacity.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.—The autumn general meeting of the above association was held on Nov. 27th at the Hotel Cecil, London, Dr. William Alexander of Liverpool, the President, being in the chair. There was a large attendance of members. The council reported that Mr. P. J. Freyer, who had held for four years the post of metropolitan honorary secretary, had been appointed chairman of council in succession to Dr. T. Gilbart Smith whose period of office had expired. Mr. Stewart proposed, and Dr. W. H. Bourke seconded, and it was carried by acclamation, that the heartiest thanks of the association should be accorded to Dr. Gilbart Smith for his valuable services at the head of the executive during the last three years. The meeting then adjourned. The members and their guests to the number of 102 sat down subsequently to dinner in the Victoria Hall. The guests of the evening were Sir Charles Crosthwaite, K.C.S.I., late Lieutenant-Governor of the North-west Provinces of India, and his Honour Dr. J. A. Rentoul, K.C., M.P. The toasts were commendably few. The proposers and those who responded included the guests of the association, the Hon. H. B. Lefroy (Agent-General for West Australia), Mr. Atherley Jones, K.C., M.P., Inspector-General Lloyd, Mr. C. B. Ball, Inspector-General Turnbull, and Surgeon-Captain R. R. Sleman (senior medical officer, C.I.V.). Songs, recitations, and humorous sketches were given by Miss Jessica Leeson, Miss Elsie Southgate, Mr. J. L. Shine, and Mr. Arthur Helmore. Mr. Dunn and Mr. Norfolk Megone accompanied.

MR. G. MELLIN has placed at the disposal of the Prince of Wales's Hospital Fund for London a quantity of Mellin's Food equivalent in value to £10,000 to be distributed among London hospitals at the rate of £2500 worth per annum.

CARDIFF INFIRMARY.—Two amateur dramatic performances are to be given at the Theatre Royal, Cardiff, on Dec. 18th and 19th, by gentlemen connected with the various insurance companies of the town, the proceeds of which are to be devoted to the maintenance of an "insurance cot" in the Cardiff Infirmary. Last year, when the scheme was initiated, the sum of £125 was raised for the purpose.

THE ROYAL NATIONAL PENSION FUND FOR NURSES.—The authorities of the above fund have issued a souvenir of the recent reception by Her Majesty Queen Alexandra of the Pension Fund nurses at Marlborough House which took place in July last. The fund owed its inception to Sir Henry Burdett and to the generosity of Mr. Junius Morgan, Mr. E. A. Hambro, Lord Rothschild, and Messrs. Anthony Gibbs and Sons, and was incorporated in 1888. Over 9000 nurses have joined it and the souvenir before us will be a pleasant reminder to the members of the Fund of the interest taken in their career by the highest in the land.

PREVENTION OF TUBERCULOSIS.—A meeting was held in Plymouth on Dec. 3rd, under the auspices of the Devon and Cornwall Branch of the Association for the Prevention of Consumption and other Forms of Tuberculosis, to consider the desirability of establishing a sanatorium for the open-air treatment of the consumptive poor of Devon and Cornwall. The Mayor of Plymouth presided, and amongst others present were the Earl of Mount Edgcumbe, Mr. J. W. Spear, M.P., Dr. H. Davy (Exeter), Dr. R. H. Clay, Dr. E. Fox, Dr. W. Webber, and Dr. F. G. Bushnell. On the proposition of the Earl of Mount Edgcumbe it was unanimously resolved that it was desirable to establish a sanatorium in the neighbourhood of Plymouth and a representative committee of the two counties was appointed. It was mentioned that an eligible site on Dartmoor had been offered.

THE ST. JOHN AMBULANCE BRIGADE.—The Osborn challenge shield, which was competed for on Oct. 26th, in the grounds of the Charterhouse, was first offered for competition in 1900 by Mr. S. Osborn, the chief surgeon of the metropolitan corps. The conditions of the competition are that each division of the metropolitan corps may send a team of four men, accompanied by four other members of the division to act as patients, and that each member of the team shall treat an individual injury and the team collectively a case. Improvised appliances only are used. The following were the competing teams in order of merit: (1) South Metropolitan Gas Company; (2) East Ham; (3) East London; (4) Causton; (5) Merton and Wembley.—Recently the honorary surgeons of the metropolitan corps of the brigade gave a complimentary dinner to their chief surgeon, Mr. S. Osborn. Mr. J. Brown presided. Mr. J. Cantlie, in proposing the health of the guest, remarked that the constitution of the service was exactly parallel to the old organisation of the Army Medical Corps. That system had much in it that was admirable. The fact that the surgeon was free to devote his attention to professional work in the corps and to leave the organisation, equipment of transport, and the transport itself to other workers had much to recommend it, but it required great tact and judgment to attach medical men to the brigade and yet to give them no power or voice in the command or direction of their corps. Medical men were easily dealt with when it was a question of giving their services, and so long as the surgeons of the brigade through the tact and discretion of the chief surgeon were considered and treated by the authorities with the courtesy which they believed to be their due so long would the present *régime* continue and there would be no necessity for taking the step which their brethren in the army were compelled to take;

and what was necessary for military might become by injudicious management at any moment necessary for civil ambulance organisation. He sincerely trusted that Mr. Osborn might long hold his present position of chief surgeon to the metropolitan corps. Mr. Osborn in his reply, after referring to the organisation of the corps, said that in the matter of work with improvised material there was still much to be desired. It was for this work that he had given a challenge shield in the hope of improvement and getting the men to show their ingenuity. They relied too much upon their book and muddled up the information they got out of it. At the close of the dinner it was decided that there should be an annual dinner of the honorary surgeons of the metropolitan corps.

AN INTERESTING PRESENTATION.—On Dec. 9th the board-room of the General Hospital, Birmingham, was the scene of a worthy tribute to one of the best friends the hospital has had since the time of the original founder, Dr. Ash. The chair was taken by Lord Howe, who, on behalf of some 208 subscribers, presented to Sir John Holder a portrait of himself, painted by the Hon. John Collier, and a replica of the same to Lady Holder. A silver casket, containing an illuminated address with the names of the subscribers, accompanied the presentation. The address expressed recognition of Sir John Holder's personal devotion to the best interests of the hospital in addition to the financial support so unceasingly and liberally given during the years occupied in the planning, building, and fitting up of the institution. Sir John Holder acknowledged in feeling terms the pleasure with which he received the presentation, and stated his high appreciation of the help that his colleagues on the board of management had always given to him during the past 11 years. Eleven years ago the idea of building a new hospital was originated by a gift of £25,000 from Miss Ryland; the scheme grew beyond expectation and has culminated in the beautiful and appropriate hospital as it now stands.

BOOKS, ETC., RECEIVED.

BAILLIÈRE, J. B., ET FILS, 19, rue Hautefeuille, Paris.

Les Empoisonnements Criminels et Accidentels. By P. Brouardel, Professeur de Médecine Légale et Doyen de la Faculté de Médecine de l'Université de Paris. Price 9 fr.

BERGMANN, J. F., Wiesbaden. (F. BAUERMEISTER, 49, Gordon-street, Glasgow.)

Knochenerkrankungen im Röntgenbilde. By Dr. Alban Köhler, Assistenz-Arzt an der Chirurgischen Abteilung des St. Joseph-Hospitals zu Wiesbaden. Price M. 20.

BERTHIER, O., 104, Boulevard Saint-Germain, Paris.

Etudes de Clinique Chirurgicale. By Dr. Antoine Pacheco Mendes, Professeur de Clinique Chirurgicale à la Faculté de Médecine de Bahia. Price not stated.

CHAPMAN AND HALL, Limited, 11, Henrietta-street, Covent-garden, W.C.

The Human Figure in Motion: an Electro-photographic Investigation of Consecutive Phases of Muscular Actions. By Eadweard Muybridge. Price 20s. net.

KARGER, S., Karlstrasse, 15, Berlin.

Jahrbuch für Kinderheilkunde und Physische Erziehung. Unter Redaction von O. Heubner, A. Steffen, Th. Escherich. 54., der dritten Folge 4. Band, 6. Heft. Ausgegeben am 4. Dezember, 1901. Preis des Jahrgangs (zwei Bände) M. 36.

Jahresbericht über die Leistungen und Fortschritte auf dem Gebiete der Neurologie und Psychiatrie. Redigirt von Professor Dr. E. Mendel, in Berlin, und Privat-docent Dr. L. Jacobsohn, in Berlin. IV. Jahrgang. Bericht über das Jahr 1900. Price M. 32.

Syphilis und Nervensystem. Siebenzehn Vorlesungen. By Dr. Max Nonne, Oberarzt am Allgemeinen Krankenhaus Hamburg-Eppendorf. Price M. 14.

MACMILLAN AND CO., Limited, London and New York.

Hygiene for Students. By Edward F. Willoughby, M.D. Lond., Diploma in State Medicine of the London University and in Public Health of Cambridge University. Price 4s. 6d.

On Disorders of Assimilation, Digestion, &c. By Sir Lauder Brunton, M.D., D.Sc., LL.D. Edin. and Aberd., F.R.S., F.R.C.P., &c. Price 10s. 6d. net.

REDMAN, Limited, 129, Shaftesbury-avenue, W.C.

A System of Physiologic Therapeutics. Edited by Solomon Solis Cohen, A.M., M.D. Vol. iv.: Climatology, Health Resorts, Mineral Springs. By F. Parkes Weber, M.A., M.D., F.R.C.P. Lond., with the collaboration for America of Guy Hinsdale, A.M., M.D. In two books. Book II. Price 10s. 6d. net.

SAMPSON LOW, MARSTON, AND CO., Limited, St. Dunstan's House, Fetter-lane, E.C.

The Guide to South Africa. For the Use of Tourists, Sportsmen, Invalids, and Settlers. Edited annually by A. Samler Brown and G. Gordon Brown for the Union Castle Mail Steamship Company, Limited. 1901–1902 edition. Price 2s. 6d.

SAUNDERS, W. B., and Co., Philadelphia and London.

Human Physiology, prepared with Special Reference to Students of Medicine. By Joseph Howard Raymond, A.M., M.D., Professor of Physiology and Hygiene in the Long Island College Hospital, New York. Second edition, entirely re-written. Price 15s. net.

A Manual of the Practice of Medicine. By George Roe Lockwood, M.D., Attending Physician to Bellevue Hospital, New York. Second edition, revised. Price 17s. net.

A Text-book of Pharmacology and some Allied Sciences. By Torald Sollman, M.D., of Cleveland, Ohio. Price 16s. net.

A Laboratory Handbook of Urine Analysis and Physiological Chemistry. By Charles G. L. Wolf, B.A., M.D., Instructor in Physiological Chemistry, Cornell University Medical College, New York. Price 5s. net.

Atlas and Principles of Bacteriology and Text-book of Special Bacteriologic Diagnosis. By Professor Dr. K. B. Lehmann of Würzburg and R. O. Neumann, Dr. Phil. and Med. of Würzburg. Translation from the second German edition. Edited by George H. Weaver, M.D., of Chicago. Two volumes. Price 21s. net.

Anatomy in its Relation to Art. An Exposition of the Bones and Muscles of the Human Body with especial Reference to their Influence upon its Actions and External Form. By George McClellan, M.D., Professor of Anatomy at the Pennsylvania Academy of the Fine Arts, &c. Price 42s. net.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, 4, Rue Antoine-Dubois, Paris.

Précis de Parasitologie Animale. By Dr. Maurice Neveu-Lemaire, Préparateur au Laboratoire de Parasitologie de la Faculté de Médecine de Paris. With Preface by Professor R. Blanchard, Membre de l'Académie de Médecine. Price 4 francs.

VIGOT FRÈRES, 23, Place de l'Ecole de Médecine, Paris.

La Migraine et son Traitement. By Professor Paul Kovalevsky, M.D. Price 3 fr. 50.

La Fièvre des Tuberculeux et son Traitement. By Dr. Pierre Seytre, Ancien Interne de l'Hôpital Saint-Joseph de Lyon, &c. Price 1 fr. 50.

WILSON, EFFINGHAM, Royal Exchange, E.C.

Banking. Notes on the Origin and Development of Banking and Lessons to be Drawn from its History. By Arthur Dougall Cochrane. Price 2s. 6d.

WRIGHT, JOHN AND CO., Bristol (SIMPKIN, MARSHALL, HAMILTON, KENT AND CO., Limited, London).

The Preservation of the Hair. By R. W. Leftwich, M.D., M.R.C.S., &c. Price 2s. net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ARMSTRONG, W. B., M.B., C.M. Glasg., has been appointed Certifying Surgeon under the Factory Acts for the Kirkintilloch District.

BARFORD, A. M., M.D., L.R.C.P., M.R.C.S., has been appointed Anæsthetist to the Throat Hospital, Golden-square.

BENNETT, WILLIAM B., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Surgeon to the St. George's Hospital for Diseases of the Skin, Liverpool.

BERESFORD, EDWYN H., M.R.C.S., L.R.C.S. Lond., has been appointed Medical Superintendent of the New Metropolitan Asylum, Tooting Bec.

BEVAN, ARTHUR, M.B. Lond., has been appointed House Physician to the Hospital for Sick Children, Great Ormond-street.

CLAYTON, JOHN CECIL, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed House Surgeon to the Bristol Eye Infirmary.

COLLINS, E. TREACHER, F.R.C.S., has been appointed Visiting Ophthalmic Surgeon to the Metropolitan Asylums Board Ophthalmia Isolation Schools at Brentwood and Swanley.

CUNNINGHAM, JOHN, M.B., C.M. Glasg., has been appointed Certifying Surgeon under the Factory Acts for the Stewarton District of Ayrshire.

CUTHBERTSON, J. O., M.B., B.Ch. Oxon., has been appointed Senior House Surgeon, Radcliffe Infirmary, Oxford.

DALY, JOSEPH P., M.D., M.Ch. R.U.I., has been appointed Certifying Surgeon under the Factory Acts for the Monasterevan District of the county of Kildare.

DARLEY, A. R., M.D. Dub., has been appointed Medical Officer of Health for Daventry.

GUNN, C. B., M.D. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Peebles District.

HARDENBERG, E. J. F., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Junior Resident Medical Officer to the North-west London Hospital.

HUNTER, WILLIAM, M.B., C.M. Aberd., has been appointed Government Bacteriologist to the colony of Hong-Kong.

MCGAVIN, LAWRIE, F.R.C.S., has been appointed Clinical Assistant in the Throat Department of Guy's Hospital.

MEACHEN, G. NORMAN, M.B., B.S. Lond., M.R.C.P. Edin., has been appointed Honorary Physician to the St. Pancras and Northern Dispensary.

MUSCHAMP, R., L.R.C.P. Edin., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Yeadon Urban District Council.

NYHAN, DENIS, L.R.C.P. Edin., L.R.C.S. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Brynmawr District of Brecknockshire.

PAKES, WALTER C. C., D.P.H. Cantab., F.C.S., has been appointed Analyst and Bacteriologist to the Transvaal Government.

PERCIVAL, F., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Superintendent of Prestwich Asylum.

PERROTT, CHARLES JOHN, L.R.C.P., L.R.C.S. Irel., has been re-appointed Medical Officer of Health for the Kingswood Urban District Council.

PRITCHETT, G. W. MORRIS, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Senior Resident Medical Officer to the North-west London Hospital.

SMART, WALTER, F.R.C.S., L.R.C.P. Irel., L.M., has been appointed Medical Officer and Public Vaccinator to the Tarporley District of the Tarvin Union.

WALLACE, STANLEY, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer of Health of the Town of Skegness, Lincs.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon, unmarried. Salary £150 per annum, with rooms, fire, lights, and attendance.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane-square, Chelsea, S.W.—Honorary Surgeon.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.

EYE AND EAR INFIRMARY, Liverpool.—House Surgeon. Salary £80, with residence and maintenance.

GLASGOW ROYAL INFIRMARY.—Superintendent. Salary £500 per annum, with board, residence, &c.

GREAT NORTHERN CENTRAL HOSPITAL.—Assistant House Surgeon for six months. Salary at the rate of £30 per annum, and board.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians for six months. Honorarium of £25.

LIGHTBURN JOINT HOSPITAL FOR INFECTIOUS DISEASES, Shettleston, near Glasgow.—Resident Physician. Salary £130 per annum, with board, &c.

LINCOLN COUNTY HOSPITAL.—Junior House Surgeon for six months, eligible for re-election. Honorarium of £25 for each period of six months, and board, residence, and washing.

LIVERPOOL DISPENSARIES.—Surgeon. Salary £200 per annum, with board and apartments.

MIDDLESEX HOSPITAL, W.—Assistant Physician.

NEW HOSPITAL FOR WOMEN, Euston-road, N.W.—Surgical Assistant, Senior Assistant, also Clinical Assistant (all females).

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon for six weeks. Salary 2½ guineas per week, with board, apartments, and washing.

QUEEN'S JUBILEE HOSPITAL.—Two Surgeons, two Physicians, and one Ophthalmic Surgeon.

ROCHDALE INFIRMARY.—Resident Medical Officer, unmarried. Salary £100 per annum, with board, residence, and washing.

ROYAL COLLEGE OF PHYSICIANS.—Milroy Lecturer, 1903.

ROYAL DEVON AND EXETER HOSPITAL, Exeter.—Senior Assistant House Surgeon for six months. Salary at rate of £90 per annum, with board, lodging, and washing.

ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow.—Two Honorary Surgeons.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House Surgeon required for six months. Remuneration at rate of £50 per annum, with board and residence.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Resident House Surgeon. Salary £100. Also Assistant House Surgeon. Salary £75, both with board, residence, and laundry.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion-square, W.C.—Honorary Clinical Assistant for three months.

SCHOOL BOARD FOR LONDON.—Two Oculists for one year. Salary 100 guineas.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and residence.

STAINES UNION WORKHOUSE, Stanwell.—Medical Officer. Salary £70 per annum.

SUSSEX COUNTY HOSPITAL.—Physician, also Assistant Physician.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Second House Surgeon, unmarried. Salary £80 a year, with board, residence, and laundry.

WORCESTER COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer. Salary £120, rising to £150, with board, apartments, and washing.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies under the Factory Acts as Certifying Surgeons at Tarporley, in the county of Cheshire; at Wick, in the county of Caithness; at Whitchurch, in the county of Hants; and at Earl Shilton, in the county of Leicester.

Births, Marriages, and Deaths.

BIRTHS.

COLEMAN.—On Dec. 3rd, at Beaufort House, Castle-street, Reading, the wife of Maurice W. Coleman, M.B. Lond., of a son.

SAVERY.—On Dec. 2nd, at 4, Mount Park-road, Ealing, the wife of Frank Savery, M.R.C.S., L.R.C.P., of a daughter.

WILSON.—On Dec. 3rd, at Elstree Cottage, Bushey Heath, Herts, the wife of Daniel Wilson, M.A., M.D. Queen's Coll., Cork, of a son.

DEATH.

HARVEY.—On Dec. 1st, at Simla, Surgeon-General Robert Harvey, C.B., D.S.O., F.R.C.P., LL.D., Director-General of the Indian Medical Service, eldest son of the late Dr. Alexander Harvey, Regius Professor of Materia Medica in the University of Aberdeen.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

PURE UREA IN THE TREATMENT OF TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—Dr. H. Harper's papers on the treatment of tuberculosis by the administration of urea (see THE LANCET of March 9th, p. 694, June 15th, p. 1672, and Dec. 7th, 1901, p. 1567) are particularly interesting, and more especially so from the fact that I believe a M.D. was about 30 years ago struck off the roll of the College of Physicians for recommending boa constrictor's urine (which is especially rich in urea) in cases of the same character. I cannot say that I believe much in the hereditary transmission of phthisis or in the milk-conveyance theory, since the inhalation of the dried tubercle-laden sputum accounts better than anything else both for the disease attacking one after another of the same family and also for the appearance of isolated cases. In the treatment of phthisis there is no question that what we have to do is to improve as much as possible the vital powers of the patient and to render him more capable of resisting the action of the bacillus. The use of urea should certainly have a wide and extended trial.

I am, Sirs, yours faithfully,

Bexhill-on-Sea, Dec. 9th, 1901. F. P. ATKINSON.

A NEW RENDERING.

WE extract the following reply to a correspondent from the *Echo* of Dec. 9th:—

(16) DOMESTIC MEDICINE BOOK.—I saw advertised in the *Chronicle* a book upon domestic medicine by Cassell and Co. I have pleasure in stating this in reply to "Family Man." I also suggest that "a man who is his own lawyer has a fool for his client," and that if for "lawyer" the word "doctor," and if for "client" the word "patient" be substituted, the proverb is equally correct, perhaps more so.

Quite so. And as we have often found fault with the replies to medical questions in lay journals it is only fair that when we totally agree with an answer we should publicly record the fact.

"LOOKING BACK."

To the Editors of THE LANCET.

SIRS,—With reference to Jonah's residence in the whale's belly (see THE LANCET, Nov. 30th, p. 1519) the theory that he was very much alive during his sojourn in his host would be unhesitatingly affirmed by the unknown author of the "Prayer of Jonah while in the Belly of the Whale." This "prayer" used to be recited with great gusto by my old schoolmaster who learnt it when a lad in Scotland. I can only recall the first verse:—

"O Lord, how dismal is this place!
I've neither coal nor candle,
And nought I see but fish's tripes
And greasy guts do handle."

I am, Sirs, yours faithfully,

Harley-street, W., Dec. 4th, 1901. WILLIAM RUSHTON.

FRIENDLY SOCIETIES AND THEIR MEDICAL AID INSTITUTIONS.

To the Editors of THE LANCET.

SIRS,—My letter to you on the above subject in THE LANCET of Nov. 30th, p. 1564, was simply to demonstrate "the legal position" of an institution of this character as contrasted with "an insurance and medical aid friendly society" where canvassing, &c., is permitted. Mr. J. B. Pike characterises my letter as insolent. I have submitted it to several medical gentlemen who agree that it is courteous in its tenor and a marked contrast to the malignant spirit with which it has been answered. I happened to be on the committee deputed to meet the members of the General Medical Council. Before and after fully explaining our position we were treated with the greatest courtesy and kindness—just what we expected from members of the noblest and greatest of professions. I confess we are not faultless and in many instances medical men are inadequately rewarded for their services, but the spirit in which Mr. Pike discusses the subject will never tend to conciliate the clubs and their surgeons. Mr. Pike flies off at a tangent: he says that the institutions are not self-supporting, for in case of accident or severe operation they fall back on the hospital and its surgeons. To this I say emphatically they are self-supporting, and the reason why they seek the hospital aid occasionally is because they contribute largely in the aggregate towards its existence. Every employé at factories and warehouses in all our big provincial towns is compelled to contribute a small sum weekly. In Bradford, Leeds, Hull, Manchester, &c., no mean sum is contributed. In all the colliery districts the same rule exists. The employés are the thrifty workmen and workwomen who form 95 per cent. of the members of a friendly society's medical institution.

I am, Sirs, yours faithfully,

Dec. 9th, 1901. C. W.

FEES FOR INSURANCE EXAMINATIONS.

To the Editors of THE LANCET.

SIRS,—My experience with the Century Insurance Company, Edinburgh, may act as a warning to others. The company advertises itself as being specially suitable to the requirements of medical men. I was asked to examine a candidate for sickness insurance. The examination required was unusually rigorous, including physical examination, testing urine, chest measurements, &c. The report consisted of three sides of foolscap and about 60 questions had to be answered. A fee of 10*s.* 6*d.* was sent to me, and though I have protested I have been unable to get my usual fee of one guinea for insurance examinations.

I am, Sirs, yours faithfully,

Nov. 12th, 1901. CYCLOPS.

THE PREPARATION OF HUMANISED MILK.

To the Editors of THE LANCET.

SIRS,—Can any of your readers kindly tell me the different methods of preparing humanised milk and the different ways of sterilising milk, as well as refer me to reliable literature where these prepared milks are contrasted with raw cow's milk in the feeding of children?

I am, Sirs, yours faithfully,

Dec. 3rd, 1901. GLASGOW.

AN ADVERTISING PRACTITIONER.

IN THE LANCET of Jan. 19th, 1901, p. 224, we compared the wording of the circular which we print below with the methods of a certain quack so-called medical alliance. On that occasion we withheld the medical man's name, but stated that we should give him full publicity if his methods remained unaltered. We have now received another complaint from a correspondent who occasionally finds the circular in his letter-box.

"Consultation, with or without medicine, One Shilling; Medicine 6*d.*

Examination, with or without certificate, Half-a-crown for Clubs, Insurances or other Societies.

At home Nine to Eleven o'clock every morning, at Three o'clock every Afternoon; and Seven to Eight o'clock every evening.

Sundays after 6 o'clock. Forenoon by Appointment.

Medicine and Attendance, Half-a-crown each week or part of a week.

No further charge for the remainder of the week. Seven days to the week, commencing at any time.

Vaccination, One Shilling; from Calf Lymph, Half-a-crown.

Teeth Extracted One Shilling each; Painless, Half-a-crown.

Teeth Stopped Half-a-crown each; and Artificial Teeth, One Guinea the Set.

Visiting Payments after Ten o'clock at Night, and before Eight o'clock in the Morning, according to time and distance.

Attendance includes Visits when patients are not able to attend at the Doctor's Surgery.

Midwifery, Accouchements, Confinements, Half-a-guinea, Fifteen Shillings, One Guinea and Two Guineas, according to agreement beforehand, when half the fee may be paid. The fee includes One week's after attendance and medicine.

Drugs, Medicines and Proprietary Articles at Cash Prices.

Diseases of Women and Children attended.

Apply—

DR. SARGENT,

Physician, Apothecary, Accoucheur, and Surgeon,

7, STATION ROAD, BRIXTON, LONDON, S.W.

Teeth Extracted at any hour guaranteed painless.

The above are only for Cash payments, paid in advance."

A SUGGESTION FOR TREATMENT.

To the Editors of THE LANCET.

SIRS,—I have seen a similar case of bronchial asthma to that described by your correspondent, "M.B. Lond.," in THE LANCET of Nov. 30th, p. 1564, practically cured by giving the "glycérophosphate de soude," Robin, by subcutaneous injection—one dose per diem for a week or two. The preparation is to be obtained in London from Mr. Jozeau, chemist, 49, Haymarket, S.W.

I am, Sirs, yours faithfully,

Dec. 9th, 1901. W. HARLE.

To the Editors of THE LANCET.

SIRS,—"M.B. Lond." in THE LANCET of Nov. 30th, p. 1564, might find one drachm of paraldehyde useful, with a second dose in about an hour of from 30 to 45 minims if necessary.

I am, Sirs, yours faithfully,

FREDERIC P. HEARDER.

West Riding Asylum, Wakefield, Dec. 10th, 1901.

HÆMATURIA AFTER EATING LAVER.

To the Editors of THE LANCET.

SIRS,—Would any of your readers—Irish especially—kindly say if in their experience the eating of laver, or sloke, has been followed by hæmaturia? as an aged patient here has heard that this is so, particularly if it be eaten before frost. He had partaken of it for some days (as he had often done with impunity) and intense hæmaturia suddenly occurred with no local or general symptom and most obscure etiology.

I am, Sirs, yours faithfully,

Winchester, Dec. 10th, 1901. W. M. HARMAN.

THE CASE OF THE LATE MR. W. K. BROCK.

To the Editors of THE LANCET.

SIRS,—May I ask you very kindly to acknowledge the following sums received in answer to the appeal for the family of the late Mr. W. K. Brock:—Mr. Snook (Weymouth), £1; Anon. (Northampton), 10*s.*

I am, Sirs, yours faithfully,

Dec. 9th, 1901. JONES, Hon. Sec.

UNCLEANLY MILK.

MR. W. HOGBEN, of Child's Hill, writes to us to point out that, while dairy inspectors are very particular as to the condition of the dairies and the cowsheds, making every inquiry into the drainage, air capacity, and flooring of the latter, they do not take into consideration the state of the cow. He points out that, in his personal experience, too many cows are kept in a dirty condition so that in the act of milking a certain amount of dust and filth from their hides must fall into the pails. This, of course, is a condition of things that could easily be remedied by grooming the cow. Mr. Hogben says that the life of the milking cow is much prolonged by steady attention to its personal cleanliness.

F.R.C.S.—King Edward's Hospital is a hospital for sick and wounded officers and its name was given by His Majesty's personal order. The hospital has been open for nearly two years, and upwards of 200 officers have received assistance there. It is situated in Grosvenor-crescent, and the patients, who are officers not well off, have their expenses paid by the ladies whose house it is. Amongst the medical men who have given their services gratuitously to the institution are Sir T. Smith, Sir R. Douglas Powell, Sir F. Treves, Sir W. Bennett, Mr. A. A. Bowlby, Mr. A. D. Fripp, Mr. G. H. Makins, Mr. Cheatle, and others.

Enquirer.—The medical profession takes no general view upon the questions, while the correspondence that might be opened by the publication of "Enquirer's" letter is too voluminous to contemplate. The British Medical Temperance Association, the Church of England Temperance Society, and other temperance bodies will supply pamphlets, &c., upon application, giving various views upon the points. In 1888 the late Dr. George Harley communicated several papers to our columns upon "Moderate Drinking," which contain particulars that might be of interest to "Enquirer."

M.A., M.B., M.R.C.P.—The persons concerned in exploiting the so-called "cure" are, of course, quacks. No fear of outraging professional opinion will deter them from their practices of deluding the sick. It is so unlikely that any readers of THE LANCET will become their victims that we do not think it worth while to give space to exposing them. Possibly an amended Medical Act will enable the policeman to play a part in dealing with such persons.

Jockey.—The Medical Defence Union might take up the case for one of its members. The General Medical Council cannot, of course, act upon private information; they must have evidence brought before them in a formal way and properly supported before they can prevent such abuses. The conduct described, if not actually "infamous in a professional respect," would certainly not be approved by the General Medical Council.

Scotia.—We do not consider such matters "all rot," as everything that tends to promote harmony among the medical men in a locality is of importance to the whole medical profession. B's wife need not be bound in the least, unless she or her husband so wishes, by B's professional relations with A.

A. N.—Medical opinion does not endorse to any extent the views of the author. Yet it is right that these views should be published, as all intelligent endeavours to solve a problem of the first importance to the human race ought, in our opinion, to be made known.

X. Y. Z.—Such circulars are very usually sent out. Care must be taken to send them only to persons whose names are actually upon the books of the vendor.

Fair Play.—The question is a purely legal one. In purchasing a practice conditions are usually imposed to prevent the situation described by our correspondent.

Bacchus.—The appointment is legal. It cannot matter whether the selected man applied for the post or was himself applied to.

B. T. U.—We do not consider in all the circumstances that the proposed fee of £2 2*s.* is too high.

A. O. should consult her medical adviser. We do not prescribe or suggest treatment.

Subscriber can describe himself as "L.R.C.P., L.R.C.S. Edin., Dentist."

Luz.—The information could be obtained at the British Museum.

J. G. P.—(1) No; (2) no; (3) yes; (4) no.

R. G.—Yes.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 12th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall	Solar Radiation in Vacuo.	Maximum Temp. in Shade.	Min Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Dec. 6	30·20	S.W.	...	61	°3	37	37	38	Foggy
,, 7	29·98	S.W.	...	63	57	38	52	53	Cloudy
,, 8	29·69	S.W.	0·06	56	55	49	51	52	Cloudy
,, 9	29·55	S.W.	0·43	68	48	42	41	44	Cloudy
,, 10	29·72	N.W.	0·15	64	44	36	35	37	Cloudy
,, 11	29·61	WNW	...	51	44	36	35	37	Cloudy
,, 12	29·44	S.E.	0·03	42	42	37	39	40	Raining

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (16th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.) St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.) West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (17th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.). Throat, Golden-square (9.30 A.M.).

WEDNESDAY (18th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.). St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

THURSDAY (19th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

FRIDAY (20th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.), City Orthopædic (2.30 P.M.).

SATURDAY (21st).—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.)

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (17th).—CHELSEA CLINICAL SOCIETY (Jenner Institute of Preventive Medicine, Chelsea-gardens, Grosvenor-road, S.W.).—8.30 P.M. Paper:—Mr. L. A. Bidwell: Cases of Empyema of the Gall-bladder.

PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—Dr. C. S. Sherrington: On Cortical Localisation with Especial Reference to the Higher Apes.

WEDNESDAY (18th).—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—7.30 P.M. Mr. F. W. W. Baker: Exhibition on Development and Structure of Eyes (illustrated by micro-slides).

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Adjourned General Meeting. 8.45 P.M. Ordinary Meeting. Paper:—Dr. Clippingdale: The Clay and Gravel Soils of London and the Relative Advantages of Dwelling on either.

THURSDAY (19th).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Clinical Evening. Cases:—Mr. F. Jaffrey: (1) Trephining for Doubtful Cerebral Mischief; (2) Diffuse Craniotabes.—Dr. R. Cautley: Infantile Scurvy simulating Acute Epiphysitis.—&c.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (16th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. M. Morris: Clinique. (Skin.)

TUESDAY (17th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. C. T. Williams: Clinique. (Medical.)

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Mr. M. Gunn: Optic Neuritis.

WEDNESDAY (18th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. J. Berry: Clinique. (Surgical.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Habershon: Symptoms and Physical Signs of Pulmonary Excavation.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—8 P.M. Mr. C. Nourse: Diseased Conditions of the Naso-pharynx.

THURSDAY (19th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Clinique. (Surgical.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Poynton: Cretinism and Allied Conditions.

FRIDAY (20th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. N. MacLehose: Clinique. (Eye.)

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

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During the week marked copies of the following newspapers have been received:—*Manchester City News, Southend Standard, Sunday Times, Public Health Engineer, Reading Mercury, Liverpool Mercury, Coleraine Herald, Macclesfield Times, Macclesfield Courier, Westmorland Gazette, Daily Despatch (Manchester), Kendal Mercury and Times, Dundee Advertiser, Bradford Observer, Yorkshire Post, Alliance News (Manchester), Vegetarian, Glasgow Herald, Manchester Guardian, Times of India, Pioneer Mail, Herald of Wales, Citizen, Spalding Press, Surrey Comet, Evesham Standard, Hertfordshire Mercury, Mining Journal, City Press, Local Government Chronicle Daily Express, Sanitary Record, Plumber and Decorator, Brighton Times, Railway Herald, Western Advertiser (Yeovil), Hastings and St. Leonards News, Surrey Advertiser, Local Government Journal, The Welshman, Middlesbrough Daily Gazette, Sussex Courier Derby Express, &c.*

Communications, Letters, &c., have been received from—

A.—Dr. F. P. Atkinson, Bexhill-on-Sea; A. N.; A. D. L. T.; Messrs. Armour and Co., Lond.; Dr. S. S. Ashmore-Noakes, Lond.; Mr. A. St. Anderson, Nottingham; Messrs. Allen and Hanburys, Lond.; Messrs. Ayrton and Saunders, Liverpool; Addressograph, Ltd., Lond.; Apollinaris Co., Lond., Mr. Georg Anderson, Frankfurt a M.

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O.—Mr. C. A. P. Osburne, Cork.

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